

# THE CONTRACT JOURNAL

INCORPORATING

THE BRITISH CONSTRUCTIONAL ENGINEER AND THE CONTRACTOR

No. 4,250 82nd YEAR

THURSDAY, DECEMBER 8, 1960

PRICE 2/-



Tees Dock, No. 1 Quay,  
Grange Town, Middlesbrough  
*The Demolition and Construction Company Ltd*  
New Fly Over, Bletchley, Bucks  
*The Demolition and Construction Company Ltd*  
Forth Road Bridge,  
South Queensferry  
*John Howard & Company Ltd*  
Park Lane Improvement Scheme,  
Hyde Park, London  
*Cubitts, Fitzpatrick, Shand*  
Cresswell Viaduct,  
Eccleshall, Staffs  
*J. L. Kier & Company Ltd*  
Dartford Tunnel, Essex Viaduct  
*Edmund Nuttall, Sons & Company (London) Ltd*  
Atomic Energy Establishment,  
Winfrith, Dorchester, Dorset  
*Turriff Construction Corporation Ltd*  
Swansea Docks Entrance Works  
*Richard Costain Ltd*  
Runnymede Bridge, Staines  
*W. & C. French Ltd*

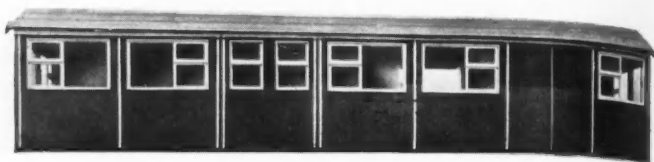
For these major contracts  
and many similar projects

## THIS MIXER

was selected because the quality of concrete  
it produces is of the very highest order.

## The Winget **TURBOMIXER**

WINGET LIMITED · ROCHESTER · KENT



# *The Nu-Lyne*

## **RANGE OF INTERCHANGEABLE SECTIONAL CONTEMPORARY BUILDINGS**

Suitable and adaptable as  
semi-permanent structures

**SCHOOL CLASSROOMS**

**SITE OFFICE**

**ACCOMMODATION**

**OFFICE EXTENSIONS**

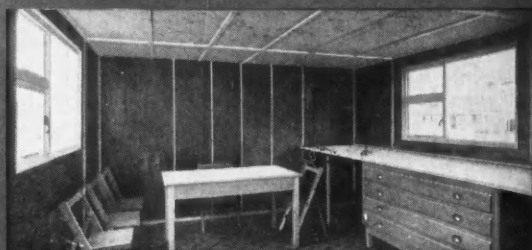
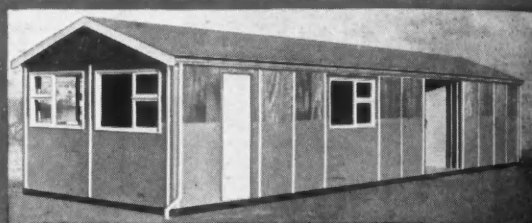
**LIBRARIES**

**CANTEENS**

**HOSPITAL EXTENSIONS**

**VILLAGE HALLS, ETC.**

The result of careful design and planning where excellent quality at correct cost is of first consideration. Being Pre-lined 100% Recoverability when the Buildings are dismantled and re-erected. Produced in a variety of modern claddings and internal linings. All sections of such design that all panels are interchangeable.



## **I. CLIFTON & SONS LTD.**

**13 NEED PARADE • WEMBLEY • MIDDLESEX**

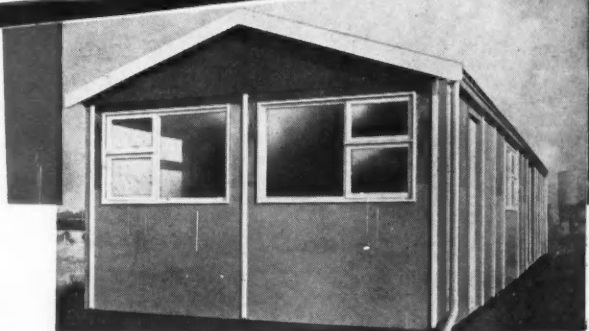
Telephone: WEMbley 2921/3

**WRITE FOR FULL DETAILS,  
DRAWINGS AND SPECIFICATION.**

**PROMPT DELIVERY.**

All types of sectional Timber Buildings  
and mobile Site Offices also available.

**Office Furniture as illustrated  
supplied by our Office Furniture  
Department. Enquiries welcomed.**





# VICKERS TRACTORS HELP SHAPE DONCASTER BY-PASS



*'With their articulated suspension those Vickers tractors can go anywhere—fast!'* says Mr. R. T. Goodman, Plant Manager.

**T**HE DONCASTER BY-PASS—vital new 14 mile link in the busy A1. The work force of the contractors on this £5,000,000 project, Cubitts—Fitzpatrick-Shand, includes two Vickers Vigor tractors. In tough use, sometimes working on rock, these machines have maintained an aggregate availability of 92.4%.

Add speed and power to extreme reliability and you get three good reasons why Vickers tractors can be found on earthmoving jobs all over the world. Contractors appreciate the go-anywhere qualities of the Vigor's

springless, articulated suspension. And there's a choice of Cummins or Rolls-Royce diesel engine and of two transmissions—six-speed direct drive or torque converter with three-speed box. Fully powered steering makes control accurate and feather-light.

There's a complete range of matched earthmoving equipment to work with the Vickers tractor. And wherever a contractor may be, in this country or overseas, he can be certain of prompt on-site service and spares for all his Vickers equipment.



Aerial view of the Doncaster By-pass—one of the major road constructions now being undertaken in Britain. Extending for 14 miles and costing £5 million, it will cut out a serious bottleneck in the vital A.1. route to the north.

## VICKERS VIGOR

**VICKERS LEAD IN FASTER EARTHMOVING**

VICKERS-ARMSTRONGS (TRACTORS) LIMITED • SCOTSWOOD WORKS • NEWCASTLE UPON TYNE 5 • ENGLAND

Sole distributors for the United Kingdom: Jack Olding & Co. Ltd., Hatfield, Herts.  
Scotland: Jack Olding & Co (Scotland) Ltd., Coupar Angus, Perthshire.

# BENFORD

a name familiar  
to ALL on sites  
both large  
and small

## DIESEL DUMPERS

Benford Dumpers are labour saving, all-purpose carriers designed for every day use by all and sundry on the Building Site and despite adverse ground conditions.

They are made in four sizes—15 cwt., 23 cwt., 30 cwt. and 35 cwt.—and are built to work with and take the full batch from concrete mixers ranging in size from 5/3½ to 21/14.

Normal standard equipment is a gravity tipping skip.

Alternatively they can be fitted with special Benford roll-over crane skips which the dumpers can pick up and put down without the driver leaving his seat.

For details send for list 6030—it is full of information.

## REVERSING DRUM MIXERS

Made in two sizes 18/12 and 10/7, each with everything the Contractor has ever wanted in a closed drum mixer.

Built-in Scraper Shovel for quick, economical loading!

Built-in Batch Weigher that really works!

Aggregate Feed Apron to keep aggregates separate and guide Shovel to the right point every time!

Self clean non-clog drum that will mix wet or very dry concrete!

Accurate measuring water tank that can be relied on whether the quantity required is large or small.

Hydraulically lifted loader—no topshaft, no wire ropes, no clutches.

Send for list 6019 and full particulars—it is free and will be sent by return of post!



A Benford 10/7 mixer working with Benford 30 cwt. size Dumpers.

**BENFORD**









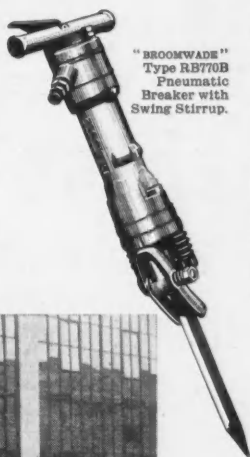
Messrs. Howard Farrow Ltd. used "BROOMWADE" Type RB770B Breakers inside the Firestone Factory.

Leading  
Contractors  
use

# "BROOMWADE"

to get jobs  
done on time

"BROOMWADE" Type WR600 and Type WR250 Portable Rotary Air Compressors belonging to Messrs. Howard Farrow Ltd. working at the Firestone Factory.



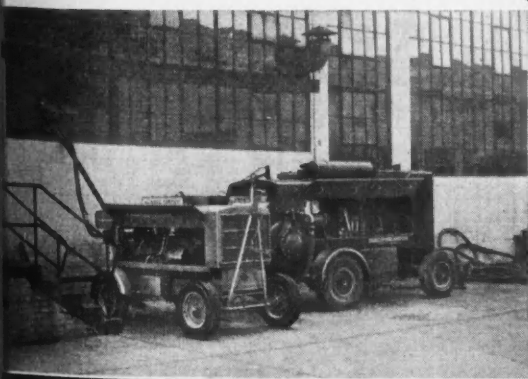
Extensive alterations to the Firestone Factory were effected without interrupting production. This was the tough assignment handled by Howard Farrow Ltd. recently—an assignment which they fulfilled with characteristic energy and enterprise.

To make the most of the annual shut-down, they laid on a team of workmen and equipped them with the right tools and plant to get the job done in the quickest possible time. Two "BROOMWADE" Portable Rotary Air Compressors were used to operate 12 to 16 "BROOMWADE" Type RB770B Breakers. The whole operation was timed to a 'split second'. It was a case of working against the clock—and the job was successfully completed before the works re-opened.

Jobs like this depend entirely upon the performance and reliability of the compressed air equipment. That is why Messrs. Howard Farrow Ltd., like many other famous contractors, rely upon "BROOMWADE" Air Compressors and Pneumatic Tools. They know that with "BROOMWADE" equipment the jobs get done on time.

Write today for full details.

Photographs by courtesy of Messrs. Howard Farrow Ltd. and the Firestone Tyre and Rubber Co. Ltd.



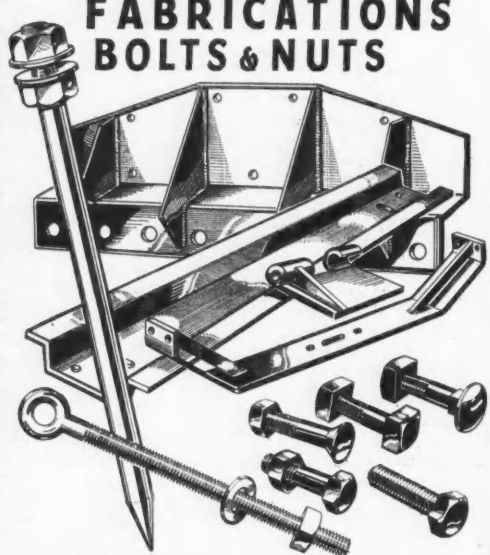
## "BROOMWADE"

Air Compressors and  
Pneumatic Tools  
YOUR BEST INVESTMENT

BROOM & WADE LTD., P.O. BOX No. 7, HIGH WYCOMBE, BUCKS · TELEPHONE: HIGH WYCOMBE 1630 (10 lines) TELEX: 83-127 826 SAS.

SPECIFY — **Bp** — FOR QUALITY

## PRESSINGS FABRICATIONS BOLTS & NUTS

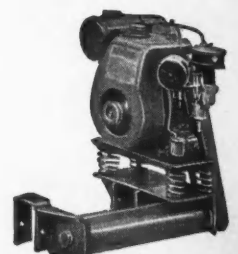
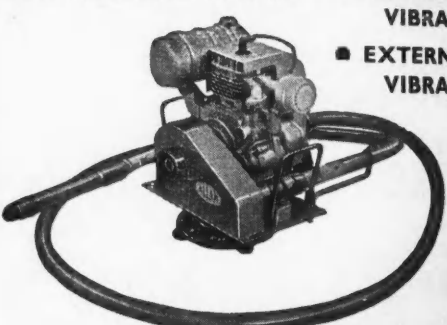


*Manufactured by*  
**B. PRIEST & SONS, LTD.**  
P.O. BOX 18      OLD HILL, STAFFS.

## ALLAM

HIRE FROM  
THE MAKER

- VIBRATING TAMPERS
- PAN VIBRATORS
- BAR CROPPERS
- ROTARY FLOATS
- LIFT & FORCE PUMPS
- INTERNAL VIBRATORS
- EXTERNAL VIBRATORS

HIRE WITH OPTION TO PURCHASE  
**ALLAM MACHINERY HIRE LTD.**  
132-135 SLOANE STREET, S.W.1      Telephone: SLOane 9976 (5 lines)  
SCOTLAND: 39 Cavendish Street, Glasgow, G.5      Telephone: South 0184

# Announcing three new tiles

## to complete the Windmill Range

★ RED MINGLE    ★ BUFF MINGLE    ★ and a new PLAIN BUFF

The mingle tiles—never before available in the quarry range—offer you superb, floor-tile colours at QUARRY TILE PRICES!

The buff tile—beats the current shortage with an extremely hard type in this colour, now in full production.

The 3 new tiles and Red and Brown Fleck make a complete range, all available in standard sizes.

Also Ceramic Cills (in above colours. Sizes 7½", 8", 9", 10" & 12", in only ⅝" thickness.



Like all 'Windmill' products, the three new colours are made with the same stable control for colour and size in accordance with the BSS.1286/1956 Type 'A'.

**SEND NOW FOR A PRICE LIST AND SAMPLES—OR ASK FOR OUR REPRESENTATIVE TO CALL.**

# WINDMILL QUARRY TILES

ALLIED BRICK AND TILE WORKS LTD • 6/7 QUEEN STREET, LONDON, E.C.4 • CITY 2725

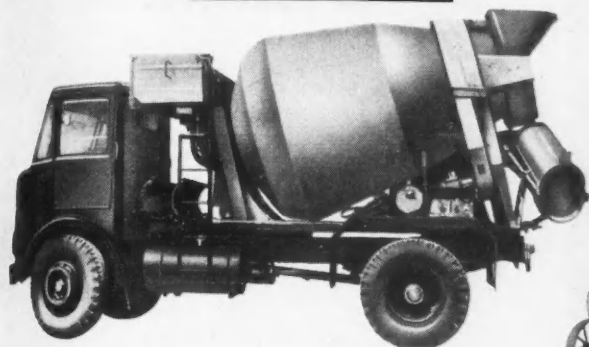
Distri  
TRACK



# BLAW KNOX

CONCRETE HANDLING MACHINERY

TRUCK MIXERS



CLEANLINE MIXERS



STORAGE BINS



SALES  
SERVICE  
SPARES



SUPERSILOS

NOW

... *plus* the unequalled

**Ernest Doe** AND SONS LTD.

INDUSTRIAL DIVISION

HEAD OFFICE

ULTING · MALDON · ESSEX

Tel: Hatfield Peverel 311 (12 lines)

LONDON

Therapia Lane, Mitcham Rd., Croydon

Tel: Thornton Heath 4844 (day and night)

*after-sales  
service*

Distributors for THE JCB-4 HYDRAULIC EXCAVATOR AND JCB-4L LOADING SHOVEL · BRAY LOADING SHOVELS · SHAWNEE-POOLE REAR DUMPS  
TRACK MARSHALL BULLDOZERS · THWAITES DIESEL DUMPERS · COUNTY BULLDOZERS · FORDSON TRACTORS · DOE-MUREX WELDERS · ROTARY HOE  
TRENCHERS · PETTER ENGINES · TUNNEY CRANES · JOHN DEERE CRAWLER SHOVELS AND BULLDOZERS

*Yes! 10 Years ahead... The Latest RECORD*

607B  
707B  
805A

FULLY COMPLY  
WITH B.S.S.2799/56

FREE TRAVELLING  
CLIMBING  
STATIC

PATENTED  
HYDRAULIC  
ERECTING DEVICE

5 SAFETY DEVICES!

ONE YEAR  
GUARANTEE

FREE ERECTION

4 FREE INSPECTIONS

LUBRICATION AND  
MAINTENANCE  
SERVICE AVAILABLE

24 HOURS SPARE  
PARTS SERVICE

TYPE	607B3	707B2	805A3
Maximum Radius	92 ft.	99 ft.	99 ft.
Maximum S.W.L.	2 tons	5 tons	6 tons
S.W.L. at Maximum Radius	20 cwt.	24 cwt.	30 cwt.
Lifting Speed	200 f/m	200 f/m	200 f/m
Max. Free Travelling Height	135 ft.	135 ft.	128 ft.
Max. Height "Static"	500 ft.	500 ft.	500 ft.
Max. Height "Climbing"	UNLIMITED		

Made by the Biggest and Oldest Tower Crane

Manufacturers

Ets. F. POTAIN & CO.

LA CLAYETTE (S & L), FRANCE

**RECORD TOWER CRANES**

Main Distributors for United Kingdom:

**BRIERE (London) LTD.**

56 Victoria Street, London, S.W.1

Tel.: VICTORIA 4583

Sole Concessionaire for United Kingdom:

GRY, BRIERE

—SALES—SERVICE—SPARES—

The Most Efficient and Specialised Tower  
Crane Organisation in this Country:

All Details, Prices and References on Request

For the Full Range (18 Different Types Available)

—Special Requirements are Undertaken—

THE RECORD CRANES . . .

. . . RECOGNIZED AS THE EASIEST AND  
FASTEST TOWER CRANES TO BE ERECTED . . .

HIGHEST EXISTING PERFORMANCE



## For Hire to Contractors

A large and comprehensive  
fleet of plant, in first-class  
condition, supported by a  
field maintenance service  
second to none. Thus, your  
worries are over when you

### Hire from ALLEN

Our fleet comprises:

- Graders & Rollers  
of all types.
- Michigan Shovels
- Truck mounted  
Excavators
- Dumpers ● Pumps
- Small Trenchers
- Compressors, etc.

May we have YOUR enquires?

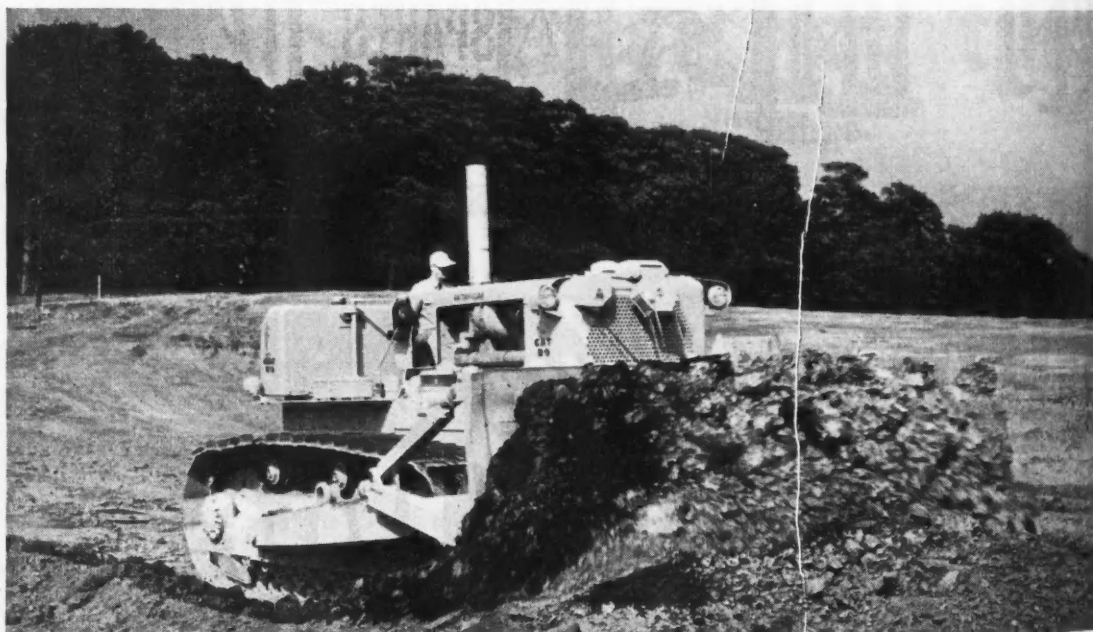
**JOHN ALLEN & FORD**

(Oxford) LTD.

Long Lane, Littlemore, OXFORD

Tel: 78241/2/3

Wokingham Depot Tel: 75 & 551



Let us remove your Overburden the modern way with a fleet of Caterpillar Bulldozers  
and 18/25 cu. yd. Scrapers, or let us Stockpile your material for the Winter Months.

**YOUR SITE INSPECTED AND ESTIMATED FREE OF CHARGE**

PHONE: NOTTINGHAM 50081 FOR PROMPT EFFICIENT SERVICE

**GAYLORD, EDWARDS & CO. LTD., CARLTON ROAD, NOTTINGHAM**

# COMPACTORS ENGINEERING LTD.

LOCKFIELD AVENUE, BRIMSDOWN, ENFIELD, MIDDX. TELEPHONE: HOWARD 4063-5

## THE NEW VIBROSOIL COMPACTOR FOR TRENCHES



This new vibrating plate Compactor is primarily designed for the compaction of soil and concrete in confined spaces. It is light, small and easy to handle. It travels automatically in either direction and the direction of travel can be instantaneously reversed. The compactor can be fitted with a 15" wide plate for trench work and a 36" wide plate for surface compaction and the two plates can be interchanged in a matter of minutes on the site. The Model VS.0 Compactor is also available for hire and we shall be pleased to arrange a demonstration without obligation.

# COMPACTORS ENGINEERING LTD.

LOCKFIELD AVENUE, BRIMSDOWN, ENFIELD, MIDDX. TELEPHONE: HOWARD 4063-5





## Clean plant is good plant

Well maintained plant lasts twice as long—or more. Contractors and plant hire companies are finding that the best way to keep plant in good condition is by letting Flextol equipment do the donkey work.

A Flextol motor and shaft drive, using the various handpieces and tools available, will remove rust, scale, concrete and other deposits from valuable plant and will make maintenance an easy and speedy job.

Accessories cover the operations of scaling, wire brushing, disc sanding, roller sanding, grinding and many other essential jobs.

Equipment is also available for tube cleaning.

*May we send you  
full particulars*

*or arrange a  
demonstration?*



**FLEXTOL ENGINEERING COMPANY LIMITED, The Green, Ealing, London, W.5**

Telephone: Ealing 4444/7

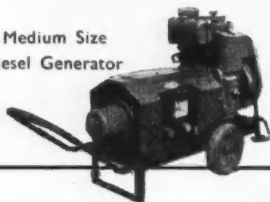
Telegrams: Dominating, Ealuz, London  
AF131

## 200 CYCLE

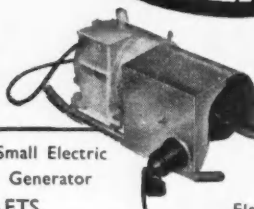
# ALLAM

## INTERNAL VIBRATOR

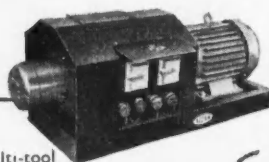
Medium Size  
Diesel Generator



Small Electric  
Generator



Multi-tool  
Electric Generator



Small Petrol  
Generator



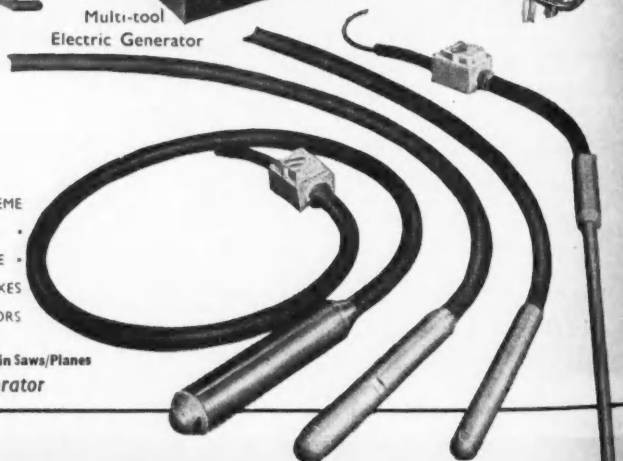
### ELIMINATING FLEXIBLE SHAFTS

*A size of Vibrator and Generator to  
suit the smallest and largest Contract*

### AN ALL-BRITISH MACHINE

### OUTSTANDING ADVANTAGES

LIGHT BUT VERY POWERFUL • NO FLEXIBLE SHAFT YET EXTREME  
FLEXIBILITY IN OPERATION • SAFE LOW WORKING VOLTAGE •  
FREQUENCY OF 12,000 R.P.M. COMBINED WITH LARGE AMPLITUDE •  
PROVED EXCEPTIONALLY HIGH COMPACTION OF VERY HARSH MIXES •  
VIBRATORS CAN OPERATE OVER 200 FEET AWAY FROM GENERATORS  
AVOIDING MOVEMENT OF HEAVY EQUIPMENT  
Now available with hand tools—comprising Grinders/Sanders/Circular Saws/Chain Saws/Planes  
Only 4-Core Cable between Vibrator Switch and Generator



*Send for further details of the full range :*

## E · P · ALLAM & CO. LTD.

132-135 SLOANE STREET, S.W.1. TELEPHONE: SLOANE 9976 (5 lines)  
SCOTLAND: 39 CAVENDISH STREET, GLASGOW, C.S. TELEPHONE: SOUTH 0186

STRANGFORD, LTD., Belfast and Dublin  
A. GUNN AND CO., Altrincham, Cheshire.  
O. L. DAVIES, Port Talbot, Glam.  
J. LEWIS (MACHINERY), LTD., Burslem,  
Stoke-on-Trent.  
CONCRETE ENGINEERING SERVICES, York  
Road Industrial Estate, Wetherby, Yorks.  
JOHN ROULSTONE, LTD., Newcastle upon Tyne  
MODERN PLANT SALES, LTD., Oldbury,  
Birmingham  
W. R. SELWOOD, Chandler's Ford, Hants.

# CONTRACTORS' PLANT

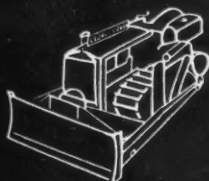
## *For Sale*



One BLAW KNOX Model BK Super "12" Heavy-duty Grader, powered by Leyland UE.600 Diesel Engine. Fitted with 12ft. Grading Blade and 25ft. Centres. Year of manufacture 1956.



One AVELING-AUSTIN Model 99H Grader, powered by Leyland UE.600 Diesel Engine. Fitted with 13ft. Grading Blade. Year of manufacture 1954.



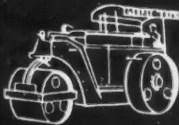
One HOLMAN Scraper Grading Unit, type HWB. Powered by 50-h.p. Electric Motor and complete with Hoe Box, Tail Sheaves, etc. Year of manufacture 1955.



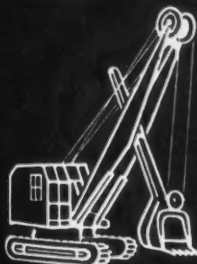
One CATERPILLAR Model D.7 Crawler Tractor, Serial No. 4T1853. Fitted with cable operated Bulldozer Blade and rear mounted Winch.



One new RUSHWORTH 15-ton capacity Two Motor Electric Derrick Crane. Fitted with 120ft. Jib. Suitable for operation on 400/440 volts, 3 phase, 50 cycles supply.



One 10-ton capacity RUSHWORTH Two Motor Electric Derrick Crane. Fitted with 120ft. Jib. Suitable for operation on 400/440 volts, 3 phase, 50 cycles supply. Year of manufacture 1952.



Several CONSOLIDATED PNEUMATIC Model CP.105 Portable Air Compressors. Mounted on four pneumatic-tyred wheels. Each having an output of approximately 105 c.f.m. at 100 p.s.i. Year of manufacture 1953.



Several EUCLID 22-ton capacity, Model B3TD Rear-dump Trucks, powered by Cummins Diesel Engine. Year of manufacture 1957/1958.

Several EUCLID 15-ton capacity B5FD Rear-dump Trucks, powered by Cummins Diesel Engine. Year of manufacture 1951/1952.

Two WALLIS and STEEVENS 8/10-ton capacity Diesel Road Rollers, each powered by National Diesel Engine. Complete with Canopy and Water Sprinklers. Year of manufacture 1951.

Several RUSTON-BUCYRUS 19RB Diesel Engine driven Excavators, each fitted with one equipment—Skimmer, Backacter, Dragline or Forward Shovel. Year of manufacture 1956.

Several RUSTON-BUCYRUS 10RB Diesel Engine driven Excavators, each fitted with one equipment—Skimmer, Backacter, Dragline or Forward Shovel. Year of manufacture 1954.

Several PRIESTMAN "Cub" Mark V Diesel Engine driven Excavators. Fitted with Skimmer or Backacter equipments. Year of manufacture 1957.

### Special Offers

Several BROOMWADE Model SV.128 Portable Air Compressors. Mounted on four pneumatic-tyred wheels. Having an output of 110 c.f.m. at 100 p.s.i. Year of manufacture 1952.

## GEORGE COHEN

SONS AND COMPANY LIMITED

WOOD LANE, LONDON, W.12

Telephone: Shepherds Bush 2070.

And at Stanningley, near Leeds; Kingsbury, near Tamworth; Manchester; Newcastle; Southampton; Glasgow; Swansea; Sheffield; Belfast and Bath.

## PORTABLE ROADS FOR SALE & HIRE

Cut costs and speed up work on the site



Mud presents no difficulty to Flexboard Roads

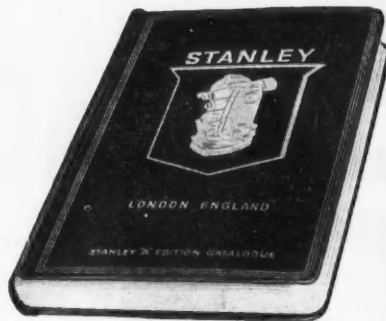
- YOU CAN HIRE 100YD. OF ROADWAY BY THE WEEK FOR THE COST OF ONE MAN'S WAGES
- WE CAN PUT A ROAD ON YOUR SITE WITHIN 24 HOURS

Full details from

**Sommertfelds**

LTD. | LONDON OFFICE: 101 VICTORIA ST. S.W.1  
TEL: VIC. 1000  
WELLINGTON - SHROPSHIRE TEL 1000

Your guarantee of satisfaction



Always refer to the

**STANLEY**

### "A" EDITION CATALOGUE

The 'Stanley' range comprises all that is best in:-

Surveying Instruments and Equipment  
Drawing Instruments  
Drawing Office Equipment  
Drafting Machines Drawing Scales  
Mathematical Instruments:— Planimeters,  
Integrators, Integragraphs, Harmonic Analysers

Copies of the "A" Catalogue will be sent on request (CJ.A1)

**W. F. STANLEY & Co. Limited**

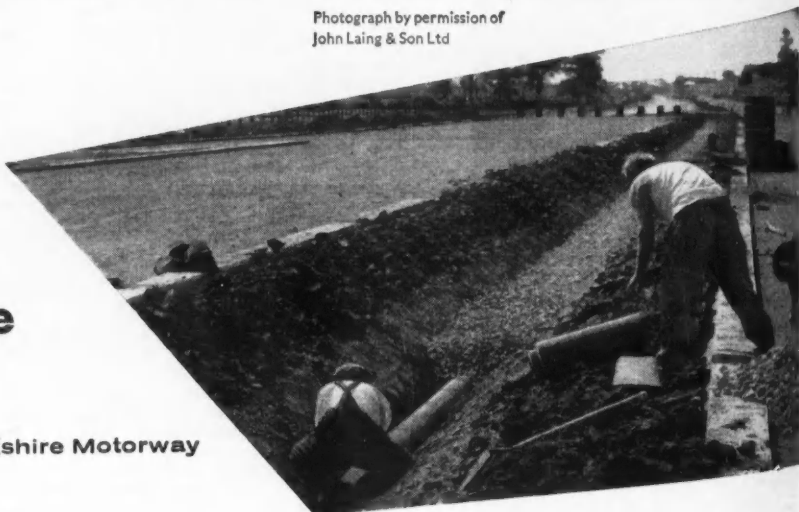
New Eltham · London, S.E.9

Phone: Eltham 3836 Grams: "Turnstile" Souphone, London

## Another drainage job well done

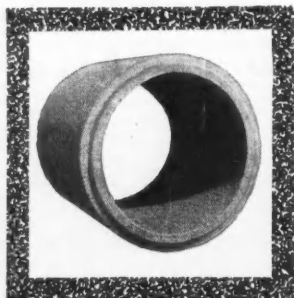
Over 60 miles of pipes used

on the London-Yorkshire Motorway



Photograph by permission of  
John Laing & Son Ltd

## RAINBOW concrete porous pipes



Full range of sizes available  
Large mature stocks  
Immediate delivery, any site  
Illustrated literature sent on request

**RAINBOW INDUSTRIES LTD**

Pollington Goole Yorks

SNAITH 312 (4 lines)

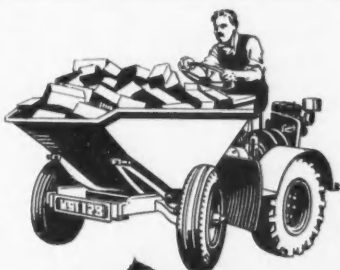


# YEAR AFTER YEAR MILE AFTER MILE

## ONE/TWENTY

Articulated Chassis  
Rear Wheel Drive  
two position skip.  
Lip Heights 40 ins.  
and 33½ ins.

CAPACITY:  
Wet level 13½ cu. ft.  
Heaped 21 cu. ft.  
at 25 degrees.



## JOHNSON PLANT STAYS RELIABLE

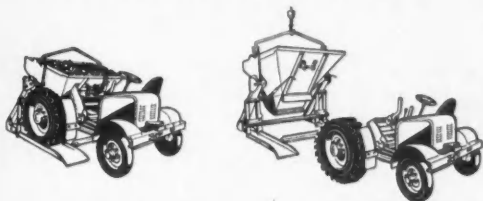
Widely acknowledged over the years in the Civil Engineering Industry, Johnson's reputation has led to their dumper being specified wherever reliable and outstanding performance are the outstanding factors. Powerful engines, job-matched skips, multi-speed gearboxes, simple controls, steering which is almost unbreakable—all these features are combined to give you 'go anywhere' dumpers whose rugged construction ensures years of trouble-free service.

**TWIN/SIXTY-FIVE** The only dumper in its class with a 3½ ton drive axle (Maker's Rating) and payload of 55 cwt.

CAPACITY: 20.8 cu. ft. wet, 40 cu. ft. heaped.



## JOHNSON TRIP-SKIP BRINGS YOU AUTOMATIC MULTI-SKIP HANDLING WITH STANDARD JOHNSON DUMPERS



This new Johnson unit solves many site problems, such as speeding the transportation of materials as various as concrete, bricks, spoil or rubble either into or out of the crane's operating radius.

# JOHNSON

## QUALITY PAYS

**C. H. JOHNSON (MACHINERY) LIMITED  
STOCKPORT · CHESHIRE · ENGLAND**

Telephone: Stockport 2642/5 Telex 66-297

Telegrams: "Machinery" Stockport

**LONDON SALES AND SERVICE DEPOT:**  
38/44 Lower Richmond Road, London, S.W.14  
Telephone: PROspect 7671

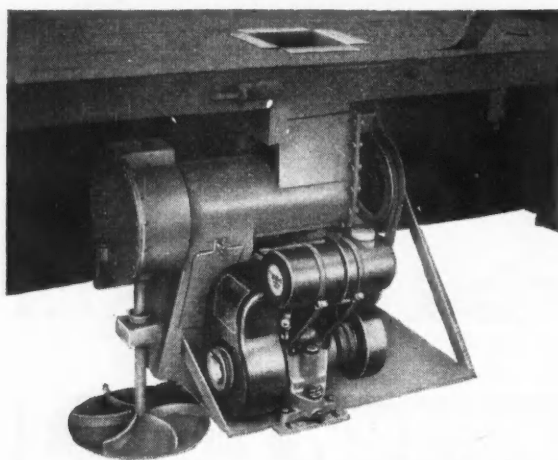
**SCOTTISH SALES AND SERVICE DEPOT:**  
119 Whitefield Road, Govan, Glasgow, S.W.1  
Telephone: Govan 2701

## Winter Accidents can be prevented



## by efficient spreading of salt, sand or grit

Here is a robust and efficient gritter that will give you years of reliable service. Easily installed under the truck bed it is fed through a convenient chute in the floor of the truck. Powered by an independent engine, through centrifugal clutch, with remote control for easy operation from truck body or cab.



## THE PHOENIX 'COUNTY' FROST GRITTER

Write for further details:

**THE PHOENIX ENGINEERING COMPANY LIMITED,**  
CHARD, SOMERSET. Telephone: CHARD 3226

London Office: 10 Norfolk Street, W.C.2

GD.26

TYZACK 3-LEG	W.H.S.
TYZACK 3-LEG	BRADES
TYZACK 3-LEG	TYZACK 3-LEG
BRADES	TYZACK 3-LEG
TYZACK 3-LEG	BRADES
BRADES	TYZACK 3-LEG

**True**

**skill**

**comes**

**with**



**B N T**

**tools**



**BRADES NASH TYZACK**  
*from Ironmongers and Tool Stores*

BRADES NASH TYZACK LTD • OLDBURY • BIRMINGHAM

**FIRST CLASS CONDITION !  
MODERN WELL MAINTAINED PLANT**

**Air Pumps Model D.150 Two-Tool Compressor.** Serial No. 18538. Powered by Dorman 4 BK diesel engine. Hand starting mounted on four wheels fast towing chassis with overrun brakes. Purchased new by us in May, 1954. Our Reference 60553. Price: £350 net cash as lying at our Bristol Depot.

**Air Pumps Model APD.135 Two-Tool Mobile Compressor.** Serial No. 19268. Powered by a Ford diesel engine with electric starting and mounted on a four wheeled fast towing chassis with overrun brakes. Machine new in 1955. Our Reference No. 60633. Price: £360 net cash as lying at our Plymouth Depot.

**Air Pumps Model APD.72 Single-Tool Mobile Air Compressor.** Serial No. 19807. Mounted on two wheeled fast towing chassis. Powered by Ford diesel engine with electric starting. Machine new in June, 1956. Our Reference No. 60823. Price: £300 net cash as lying at our Plymouth Depot.

**Air Pumps Model APD.135 Two-Tool Compressor.** Generally as above. Serial No. 2057052. Machine new May, 1957. Our Reference No. 60933. Price: £465 net cash as lying at our Plymouth Depot.

**C.P.T. Two-Tool Mobile Air Compressor.** Mounted on four pneumatic tyred wheels with hand parking brake. Serial No. F035307. Powered by a Ruston 3 VRH diesel engine. Our Reference No. 601503. Price: £275 net cash as lying at our Birmingham Depot.

**International Tractor, type BTD.6.** New in 1955. Complete with Bulldozer equipment. Machine No. 2412. Engine No. BD/264/8138. Our Reference No. 60203. Price: £895 net cash as lying at our Newport Depot.

**Thwaites Dumper.** Generally as before. Serial No. 3111. New in May, 1958. Our Reference 60683. Price £360 net cash as lying at our Plymouth Depot.

**Thwaites "Nimbus" Dumper.** Serial No. 3342. But generally as above. New in October, 1957. Our Reference No. 60852. Price: £200 net cash as lying at our Portsmouth Depot.

**Priestman "Wolf"  $\frac{3}{4}$  cu. yd. Excavator Mark IIIB.** Serial No. A/6905. Powered by a Dorman 4 BK II diesel engine. Complete with Skimmer and Trencher Equipments. Machine new 1954. Our Reference No. 60093. Price: £1,000 net cash as lying at our Newport Depot.

The above machine is fitted with a Derricking Unit, Fairlead and "A" Frame details which are offered at £110 net cash as lying at our Bristol Depot.

**Smith 8  $\frac{1}{2}$  cu. yd. Excavator.** Serial No. X41235. Complete with Skimmer and Backacter Equipments. Powered by a Petter 3 BT diesel engine. Serial No. 2144. Complete with electric starting. Recent engine overhaul. Machine new in 1956. Price: £1,150 net cash as lying at our Portsmouth Depot.

**J.C.B. Mobile Excavator.** Serial No. 2301. Powered by a Fordson diesel engine. Serial No. 1361907. Fitted with a front mounted 2-tool Holman compressor unit.

**Excavator new in December, 1955.** Compressor new in 1956. Complete with one Backacter bucket. Our Reference No. 60623. Price: £775 net cash as lying at our Plymouth Depot.

**J.C.B. Hydra Digga Mobile Excavator.** Serial No. 4160/57/8. Powered by a Fordson diesel engine. Fitted with Ballast block equipment and complete with one 22/26in. Backacter bucket. New September, 1957. Our Reference No. 60553. Price: £1,300 net cash as lying at our Plymouth Depot.

**A.C.E. "Comet" Hoist, 10cwt. capacity, 2 barrow platform.** Serial No. 011355. Powered by a Petter AVAI diesel engine. New in June, 1956. 21ft. landing height. Our Reference No. 60263. Price: £195 net cash as lying at our Newport Depot.

**Several 3in. Stanley Diaphragm Lift and Force Pumps, mounted on four steel wheels and powered by a Lister diesel engine.** Our Reference No. 60293. Price: £75 each net cash as lying at our various depots.

**Blaw Knox "Rex" 14/10 Closed Drum Concrete Mixer.** Powered by a Ruston 1 VSH diesel engine. Serial No. 378004. Mounted on 4 steel wheels. Purchased new by us in 1955. High discharge type. Our Reference No. 60693. Price: £275 net cash as lying at our Bristol Depot.

# SECOND HAND PLANT

**225 DIFFERENT PIECES  
ALMOST EVERY SIZE AND TYPE**

**Weatherill Type 2. HCR "Q" Loading Shovel.** Serial No. 602. With  $\frac{1}{2}$  cu. yd. capacity Quarry Scoop. Purchased new by us in May, 1957. 1400 x 24 tyres, 29 x 8 front tyres. Powered by a Fordson diesel engine. Our Reference No. 60163. Price: £875 net cash as lying at our Bristol Depot.

**Fordson Petrol/Paraffin Tractor unit complete with Barford Trencher, driven from Tractor Power Take-off.** Our Reference No. 6083. Price: £95 net cash as lying at our Bristol Depot.

**Thwaites 4 wheeled 15cwt. Dumper.** Serial No. 1765. Powered by Petter AVAI diesel engine. New January, 1956. Our Reference No. 60473. Price: £135 net cash as lying at our Portsmouth Depot.

**Thwaites 4 wheeled Dumper, 30cwt. capacity, mounted on 4 wheels.** Serial No. 1955. Powered by a Petter AVA2 diesel engine. New January, 1956. Our Reference No. 60483. Price: £200 net cash as lying at our Newport Depot.

**BRISTOL  
PLANT  
HIRE LTD**

BATH ROAD, BRISLINGTON, BRISTOL 4

(Phone: Bristol 70321 (4 lines))

**BIRMINGHAM** 89-93 Wrentham St.,  
Bristol St., Birmingham 5  
Tel: Midland 5447-8

**NEWPORT** Hornby House, Pugsley St.,  
Newport, Mon. Tel: Newport 67121-2-3  
**EXETER** Exwick Rd., Exeter  
Tel: Exeter 59561

**PORTSMOUTH** 25 Fareham Park Rd.,  
Fareham, Hants. Tel: Tichfield 3124-5

**PLYMOUTH** Elburton, nr. Plymouth  
Tel: Plymstock 2049 and 2529

**ALSO NEW PLANT FOR HIRE OR SALE  
WRITE FOR LIST — OR**

**RING BRISTOL 70321**





## SITE CABINS & OFFICES

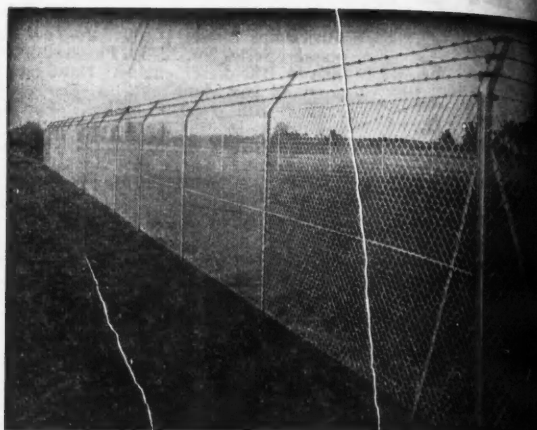
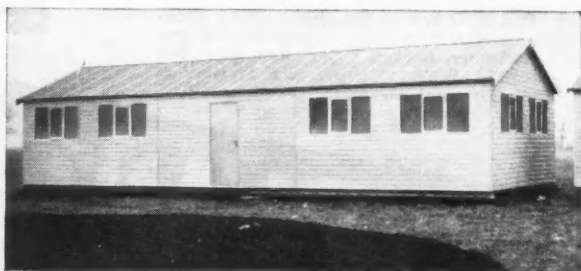
A comprehensive range of sizes is available of all timber design — Weatherboard — Tongued and Grooved Board or Plywood cladding being optional.

We also manufacture other types of Sectional Buildings in timber and asbestos — steel and asbestos — and all steel — including structures to your own specification.

Write for details to:-

### C & R CONSTRUCTIONS LTD.

NORTHOWRAM · HALIFAX · TELEPHONE · HALIFAX 68191/2



### 'PREMIER' BRAND FENCING UNITS & GATES

FENCING CONTRACTS Undertaken through well established Local Agents.

MATERIALS Supplied Only, If required.

QUANTITIES & SPECIFICATIONS drawn up, advice freely given.

ILLUSTRATED SPECIFICATION LEAFLETS available on request.

## CHAIN LINK FENCING LIMITED

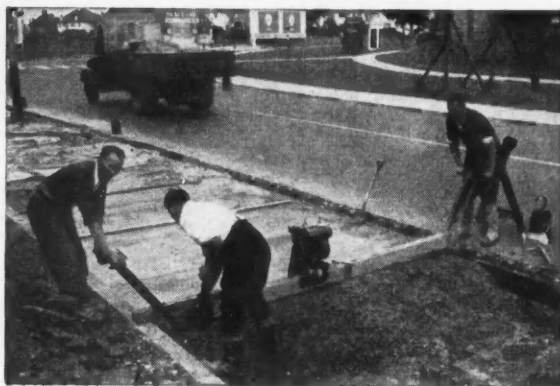
KING'S LANGLEY · HERTS.

Telephone: King's Langley 4041/2/3

# ALLAM

## VIBRATING TAMPERS

FOR ALL CONCRETE ROADS, FLOORS, AREAS, etc.



THE FINEST TAMPING EQUIPMENT AVAILABLE. MODIFIED DESIGN INCORPORATING:

- ★ INTERCHANGEABLE VIBRATING UNITS FOR ROAD WIDTHS UP TO 20' USING ONE MACHINE.
- ★ AUTOMATIC FORWARD TRAVEL.
- ★ VIBRATOR AND BRACKET STEEL FABRICATED, NO CASTINGS.
- ★ SPECIAL ANTI-VIBRATION HANDLES, POSITIVE CONTROL WITH MINIMUM FATIGUE.
- ★ INSTANTANEOUSLY VARIABLE FREQUENCY TO SUIT ALL CONDITIONS.
- ★ ELECTRICALLY OPERATED TYPE ALSO AVAILABLE.

SAVE TIME, MONEY AND MATERIALS BY USING VIBRATING TAMPERS.

### E. P. ALLAM & CO. LTD.

132-135 SLOANE STREET, S.W.1. TELEPHONE: SLOANE 9976 (5 lines)  
SCOTLAND: 39 CAVENDISH STREET, GLASGOW, C.5. TELEPHONE: SOUTH 0186

STRANGFORD, LTD., Belfast and Dublin.  
A. GUNN AND CO., Altrincham, Cheshire.  
O. L. DAVIES, Port Talbot, Glam.  
J. LEWIS (MACHINERY), LTD., Birmingham.  
Stoke-on-Trent.  
CONCRETE ENGINEERING SERVICES, York.  
Road Industrial Estate, Wetherby, Yorkshire.  
JOHN ROULSTONE, LTD., Newcastle.  
Tyne.  
MODERN PLANT SALES, LTD., Oldham.  
Birmingham.  
W. R. SELWOOD, Chandler's Ford, Hampshire.

ES  
—  
oll  
ce  
le  
G





# THE MOST POWER

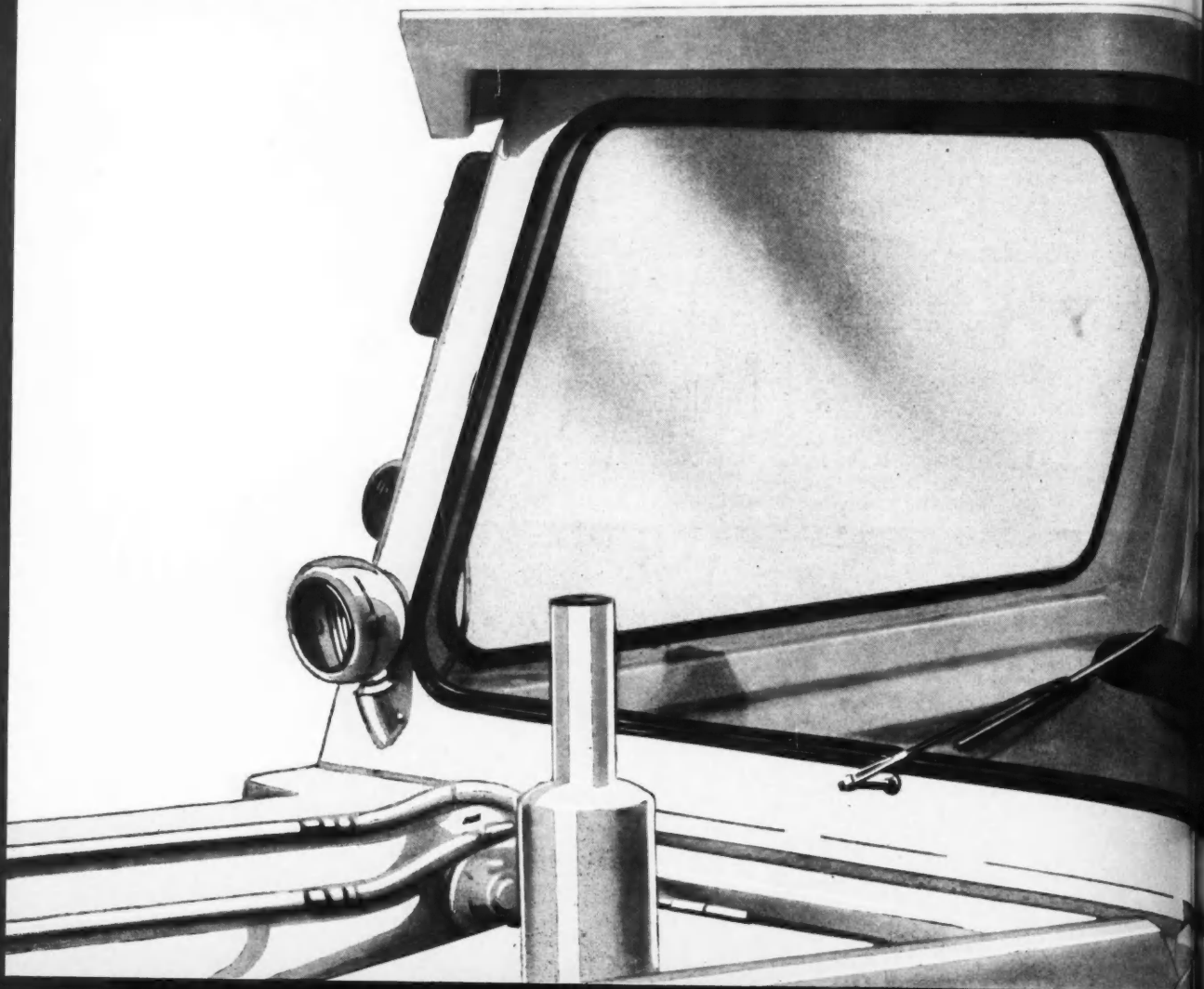


WITH THE



# 4

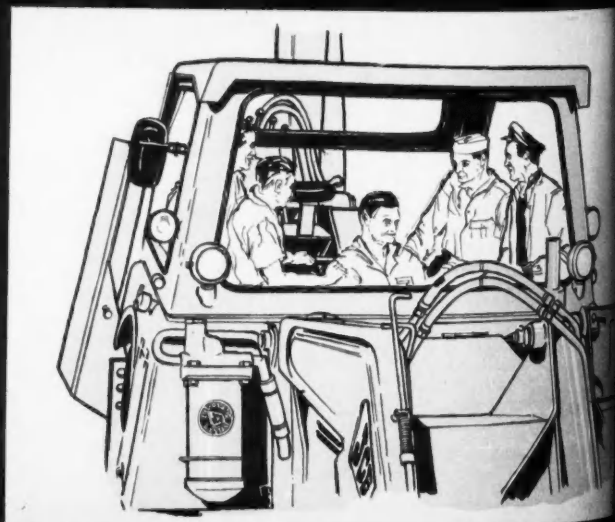




# SUPER COMFORT



All weather working protection



Seats five, for site to site transport



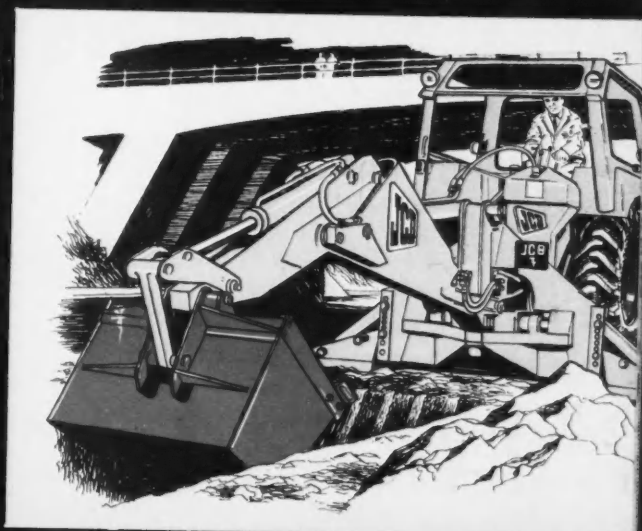
# 'SPACEVIEW' CAB

on the



# 4

160 cu. ft. cab seating five persons:  
superb all round visibility:  
full deluxe lighting: trafficators:  
interior light: external mirrors:  
dunlopillo seats.



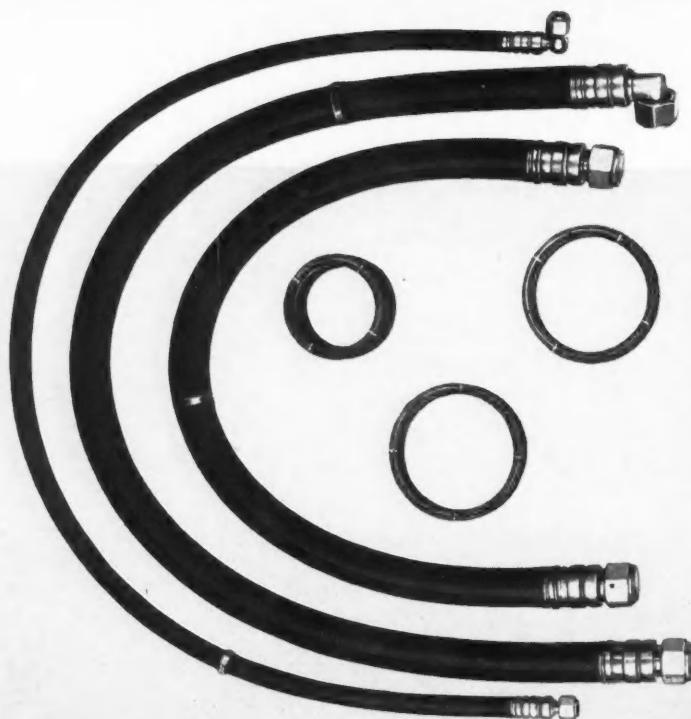
**JCB** ROCESTER, STAFFS  
TEL UTTOXETER 3122

Power, strength, performance

# STANDARDISED HYDRAULICS ON THE NEW



MEAN LESS DOWN TIME AND GREATER OUTPUT



3 sizes of short robust digger hose only

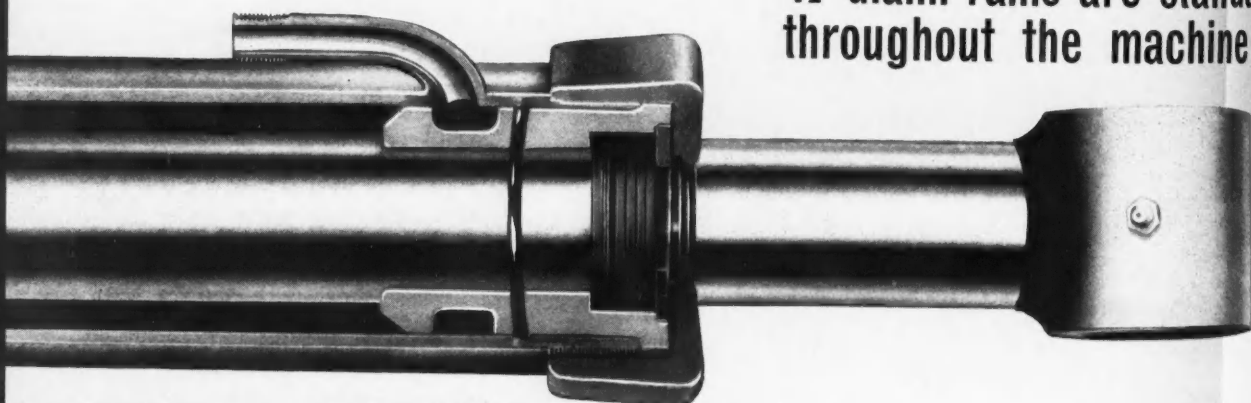


only 3 seals to service all rams on the equipment



## RAMS

4½" diam. rams are standard throughout the machine



clip here

Please rush details of the

**NEW JCB 4** and the JCB Credit Plan

to

**MAIL NOW**

for information on JCB Earthmoving Equipment and details of the

JCB Credit Plan



ROCESTER STAFFS  
TEL: UTTOXETER 3122

# BIG OUTPUT 9-K3



**INTERNATIONAL  
DROTT**

**4 in 1 bucket**  
capacity 1½ cu.yards

**IMMEDIATE  
DELIVERY**  
FOUR in ONE  
OPERATIONS

**DIG .  
DOZE .  
LOAD .  
GRAB .**

- 6 Cylinder diesel Engine 71 B.H.P.
- Direct starting
- 4 Forward and 2 reverse speeds



Demonstrations on site

# SAVILLE

(TRACTORS) LIMITED

A Company of the LUMLEY-SAVILLE Organisation.

**STRATFORD-ON-AVON**

Telephone: 4242 (15 lines)  
Telex. Birmingham 31633

**LONDON**

Tel: ASHFORD (Middx.) 4191 (10 lines)  
Telex. London 24117

**CARDIFF**

Tel: CARDIFF 33572/3  
Telex. Cardiff 49250



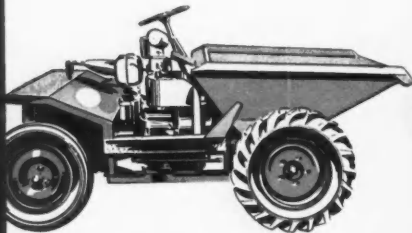
**BELFAST** Telephone: DUNMURRY 2511 (4 lines)

**IRELAND:** Sole Distributors for INTERNATIONAL HARVESTER, J. H. SAVILLE & CO. LTD. Tel: DUBLIN 373606 (5 lines)



# Thwaites

gives you ruggedness and performance in narrow loading height for greater confined spaces



36 inch LOADING HEIGHT



BIG CAPACITY HEAVY DUTY SKIP



ONLY 49 1/2 INCHES WIDE

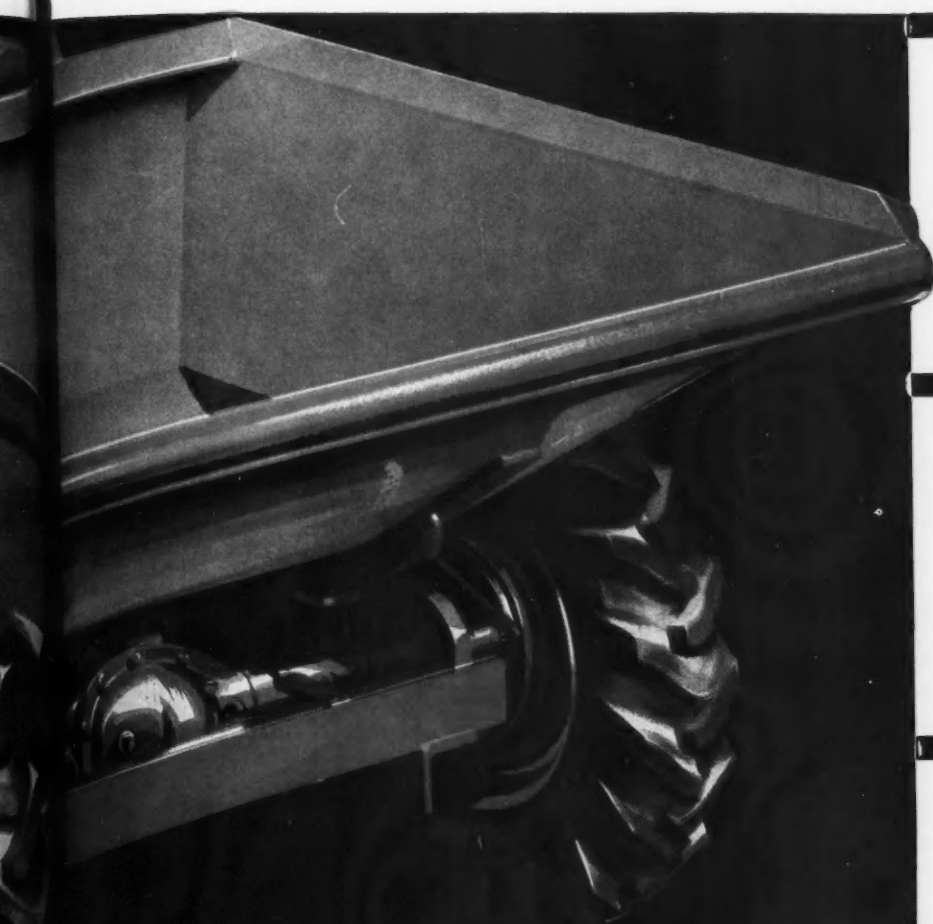


**£332.10 del.**

# Thwaites 'SPRITE'

# ES 'SPRITE'

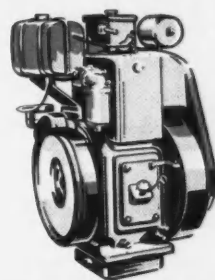
reliability of BIG dumper  
form without increasing  
manoeuvrability in con-



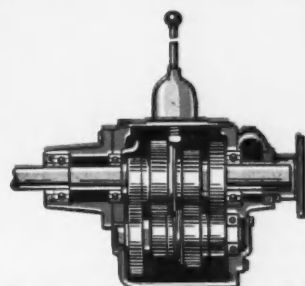
**CAPACITIES:** WATER LEVEL 13 cu ft  
MAX. LOAD 15 cwt



UNDER 7' 9" TURNING RADIUS



5/6 H.P. DIESEL ENGINE



3 SPEED & REVERSE CONSTANT MESH GEAR BOX

the small dumper with the big capacity

# THE 'ROB ROY' CRUSADER



**LOOKED AT**

**FROM ANY ANGLE**

**THIS NEW (22 1/2) cwt. DUMPER**

**IS A WINNER**

## BUILT TO GIVE DEPENDABLE SERVICE

STEERING: Ackermann Principle with Ball Joints and Land Rover Type Steering Column. Constant-mesh Gearbox with 3 Forward and 1 Reverse Speeds.

CAPACITY: Water Level • 18 cu. ft.  
Struck Level • 25 cu. ft.  
Heaped • • • 28 cu. ft.

Powered by PETTER PHI. 6 1/2 h.p. Single Cylinder Air-cooled Diesel Engine.

FOR PARTS SALES AND SERVICE  
THERE ARE "ROB ROY"  
APPOINTED AGENTS IN MOST  
LARGE CITIES THROUGHOUT  
THE UNITED KINGDOM.

FULL PARTICULARS CAN BE  
HAD FROM

**ROB ROY**  
CONTRACTORS' PLANT

JAMES F. LOW & CO., LTD. MONIFIETH, DUNDEE, SCOTLAND. Phone: Monifieth 1



# IBECO

## WATERPROOF PAPER

### IN CONCRETE ROAD CONSTRUCTION

Recommended qualities for concrete work are IBECO No. 40 to BSS 1521/1949 Class B and IBECO No. 60, the choice depending on the stresses involved. The former fully meets the specification at the lowest possible cost. As well as preventing seepage from the mix IBECO also checks the upward penetration of harmful acids and other chemicals frequently occurring in subsoils. It also has useful applications as a curing overlay. There is no free bitumen in IBECO to sweat out under exposure to hot sun. We will gladly send samples on request.

For the essential retention of water in a concrete mix to ensure sound setting and hardening, careful contractors are more and more depending on IBECO... Like no other waterproof paper, IBECO is waterproof *throughout its texture*. The proofing bitumen is part of the paper itself. Folding, creasing, even heavy trampling will not impair IBECO's impermeability... It's easy and quick to handle—speeds the work *as well* as lowering its cost and ensuring a better job. Remember IBECO for contracts in hand and in prospect.

#### DAVIDSONS PAPER SALES LTD.

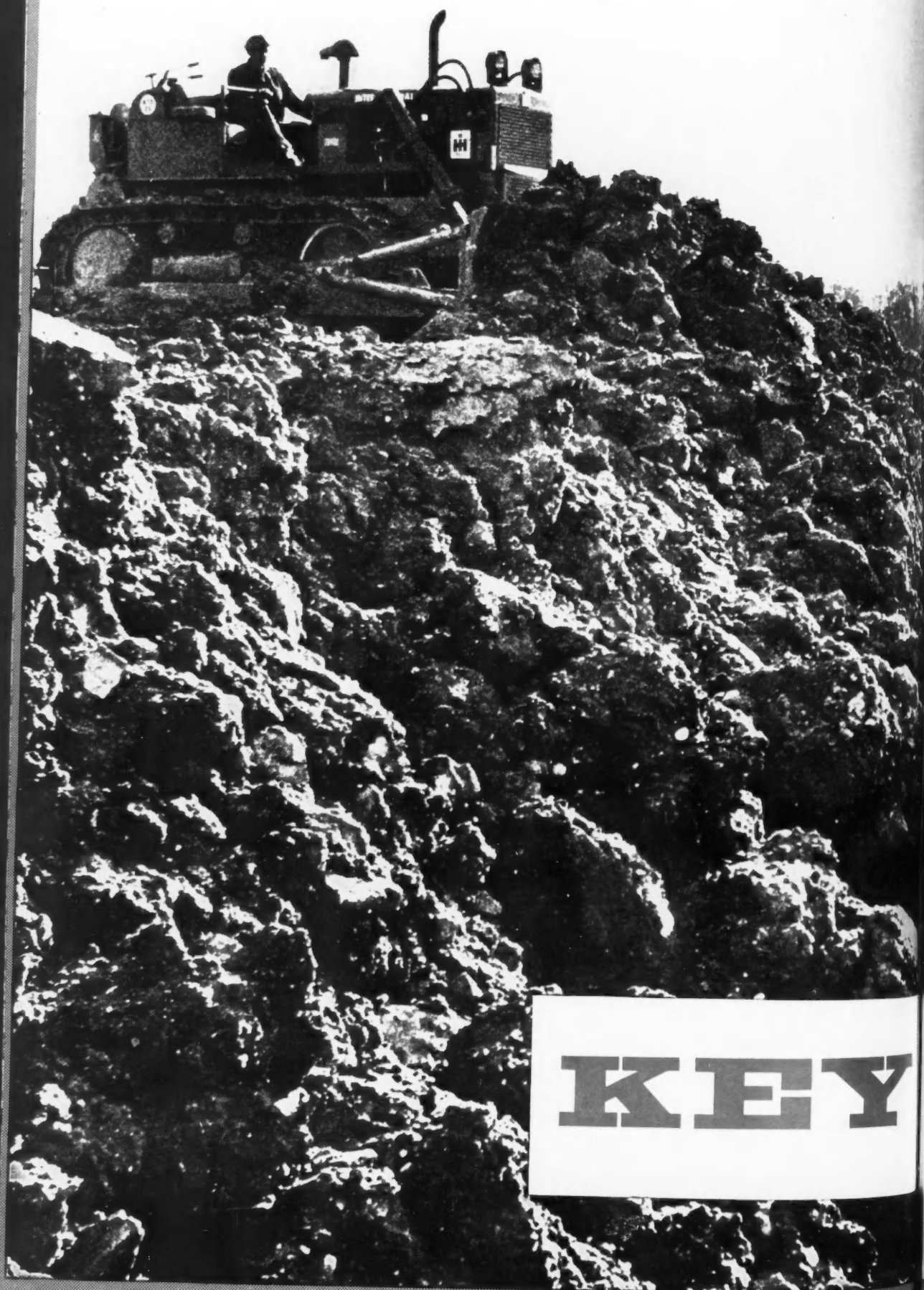
Head Office: Mugiemoss Mills, Bucksburn, Aberdeen.  
Liverpool 2, 9 Albion Street, Leeds. 42 Corporation Street, Newcastle-on-Tyne. Laird Place, Bridgeton Glasgow, S.E. Boroughloch Square, Edinburgh. 4 Trinity Quay, Aberdeen.

Branches: 82/84 St. John Street, London, E.C.1.

31 North John Street

Boroughloch Square, Edinburgh. 4 Trinity Quay, Aberdeen.





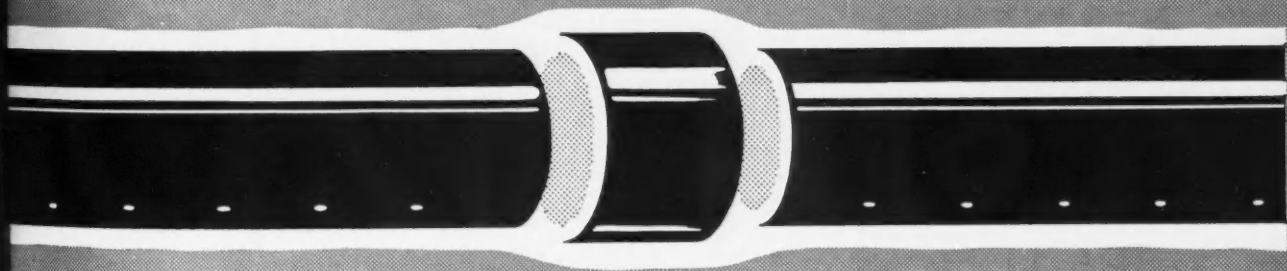
**KEY**

# ***The hard high road -or is it?***

The foundation beneath a road is at least as important as the road itself—and far more vulnerable to damage by flood or frost. KEY Perforated Pipes give permanent protection simply and economically, providing efficient drainage in all circumstances.

Just what are these KEY Perforated Pipes? They're made to a rigid specification, from cellulose fibre impregnated with pitch. Though light in weight, they're tremendously tough and resilient, and withstand high static and dynamic loads. Thousands of vehicles were driven at varying speeds over KEY pipes with a mere 12 inches of soft cover without effect. They're perforated to a scientific design that eliminates silting. They have a smooth inner bore which gives exceptional flow characteristics. They come in 8-ft lengths, with quickly fixed snap couplings, and they can be cut where necessary with an ordinary handsaw.

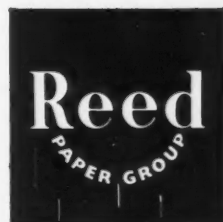
Altogether, KEY Perforated Pipes are the answer to road drainage problems. Please write for full details now.



## **Pitch Fibre Pipes**

**FOR ROAD DRAINAGE**

THE KEY ENGINEERING COMPANY LIMITED  
Larkfield, Maidstone, Kent Telephone: Maidstone 7-7777 Extension 728





## In the main it's money

Over 4 miles of 18 inches diameter and  $\frac{3}{4}$  mile of larger and smaller diameter Staveley cast iron pipes help to take the waters from the new Ogston Reservoir to the consumer.

Staveley's advice on any aspect of cast iron pipes and mainlaying is often of economic value—and in the main that is money.



# STAVELEY

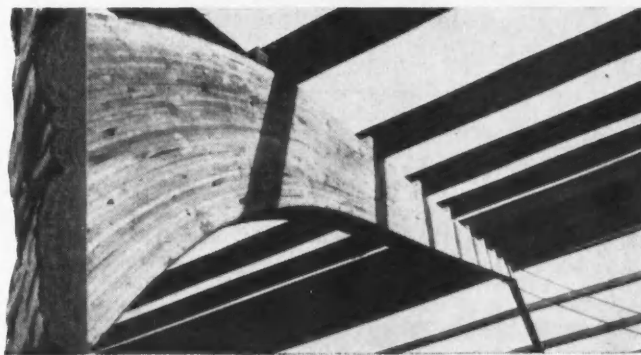
## SAND & METAL SPUN PIPES FOR WATER, GAS & SEWAGE

THE STAVELEY IRON & CHEMICAL CO. LTD., Nr. CHESTERFIELD Telephone: Chesterfield 7251





**Douglas Fir** Often reaching a height of over 300 ft., this is the tallest giant in the forests of British Columbia. Felled and stripped, the tree yields a timber of light weight and even grain which is stronger pound for pound than steel or concrete. Hence its considerable variety of uses - for heavy structural work, heavy duty case-making, shipbuilding and bridging, indeed virtually every application where a hardy wood of excellent wearing and weathering properties is needed. *For further information contact: Commercial Secretary (Timber), Canada House, London SW1.*



Douglas Fir beams provide the largest laminated arches in the U.K.





**REPAIR SERVICE**  
*on all makes of*  
**THEODOLITES & LEVELS**  
**PICK-UP AND DELIVERY SERVICE**  
**SURVEY & GENERAL INSTRUMENT CO. LTD.**  
 329 HIGH HOLBORN, LONDON, W.C.1.  
 Telephone: HOLborn 4118 (3 lines)

Agents in the North West:  
**CHADBURNS (Liverpool) LTD.,**  
 31 Brunswick Street, LIVERPOOL.

Agents for  of Switzerland



Ensure  
*safety with*  
**DORMAN LONG**  
**Steel Trench Sheeting**  
(Regd. Design No. 850,839)

The ideal for temporary lining,  
 easy to drive: can be used  
 over and over again

**PROMPT DELIVERY**

Prices and full particulars on application to  
**DORMAN LONG (Steel) LTD., SHEET DEPT.,**  
**AYRTON WORKS, MIDDLESBROUGH**  
 London Office: Terminal House, 52 Grosvenor Gardens, S.W.1

## A. & G. DESIGNS (ROMFORD) LTD.

Have facilities immediately for Design, Drawing or Tracing  
 work in our own offices in Romford or Birmingham.

### ANY PROJECT UNDERTAKEN

as we have a large staff of men experienced in all  
 fields of work.

*Apply:* Mr. D. Andrews, Contract Manager  
**A. & G. DESIGNS (ROMFORD) LTD.**

57-59 High Street, Romford

Telephone: ROM 43617

**THE NEW**  
*Staffa*  
**4 TON MOBILE CRANE**

"Low inclusive price, with no extras and prompt delivery! I'm delighted with the Board's choice."  
**THE BUYER**

"I know I can rely on the new Staffa. Any driver can handle it without special training."  
**THE PRODUCTION ENGINEER.**

"The Staffa 4 is equipped with a Ford standard engine. I'll have no troubles with spares. All moving parts are easy to get at too!"  
**THE MAINTENANCE ENGINEER.**

"It's very manoeuvrable and I like the way it handles different sizes of load in a minimum of time."  
**THE TRANSPORT MANAGER.**

"The safe-load indicator is what I looked for—it's fitted as standard with other safety devices to reduce the chance of accidents."  
**THE SAFETY OFFICER.**

*Demonstration can be arranged on your own selection of site.*

*Please contact the manufacturers:—*

## CHAMBERLAIN PLANT LIMITED

ONE OF THE CHAMBERLAIN GROUP OF COMPANIES

**CROWN WORKS, SOUTHBURY RD., ENFIELD, MIDDLESEX**

**TEL: HOWARD 4994**

# DEMOLITION

## helps give London a *new face*

And not only London. All over the country, working in collaboration with architects, local authorities, contractors, builders and property owners—by clearing sites and by removing unsightly, uneconomic, derelict and often dangerous structures—the **DEMOLITION CONTRACTOR** is paving the way for new building and redevelopment programmes. Demolition is a skilled job, and to put it in the hands of inexperienced men is inviting trouble. The employment of a Member of The National Federation of Demolition Contractors is your best safeguard. It ensures the work will be carried out with speed, economy and safety, leaving the site as you would expect to find it—ready for an immediate start.

The members whose names are given opposite are prepared to quote for work in any part of the country. For further information apply: **THE SECRETARY, NATIONAL FEDERATION OF DEMOLITION CONTRACTORS, 20/21 PRINCES STREET, HANOVER SQUARE, LONDON, W.1. MAYfair 4768/9.**



Charing Cross Station Approach Clearance



## These are the people to contact . . . . .

**ALLISON SAMUEL B. LTD.,**  
48 Whitevale Street, Glasgow, E.1.  
BRIDGETON 3881

**ASHTON R. AND SONS (STOKE NEWINGTON) LTD.,**  
109 Stoke Newington Road, London, N.16.  
CLISSOLD 0081-2

**BENNETT BROS.,**  
Spekes Road, Wigmore, Gillingham, Kent.  
RAINFHAM 81375

**BISHOP SYD. & SONS (DEMOLITION) LTD.,**  
"Acrefare," Sundridge Avenue, Bromley, Kent.  
RAVENSBORNE 1400

56a Mooreland Road, Bromley, Kent.  
RAVENSBORNE 6747

**BLAIR ALAN,**  
28 Southend Avenue, Darlington, Co. Durham.  
DARLINGTON 66272

**BOWER WALTER,**  
High Street, Barlborough, Derbyshire.  
CLOWNE 112

**BRAMWELL H. LTD.,**  
1141 Aldridge Road, Perry Barr, Birmingham, 22A.  
GREAT BARR 3234

**BURFORD TAYLOR & CO. LTD.,**  
20/26 Church Street, Middlesbrough.  
MIDDLESBROUGH 2622 and 2623

**CHARLES BRAND (DUNDEE) LTD.,**  
South Road, Lochee, Dundee.  
DUNDEE 68233  
Glasgow—295 Edmiston Drive, Glasgow.  
GOVAN 3261  
Aberdeen—35 Fraser Place, Aberdeen.  
ABERDEEN 21441

**CHARLES BRAND OF DUNDEE,**  
Scone, Perthshire.  
SCONE 535

**CHILDS JAMES,**  
Corby Road, Grimesthorpe, Sheffield, 4.  
SHEFFIELD 367151/2

**CLOKE GEO. E. LTD.,**  
"Elmsted," Neasden Lane, London, N.W.10.  
GLADSTONE 1163 and 4296

**COLES DEMOLITION & EXCAVATION LTD.,**  
174 Twickenham Road, Isleworth, Middx.  
ISLEWORTH 3545 and 1585

**CONNELL & FINNIGAN LTD.,**  
44 Molyneux Street, Chorlton-on-Medlock, Manchester, 13.  
ARDWICK 2523/4/5

**CONTRACTORS (MANCHESTER) LTD.,**  
Greg Street, Reddish, Stockport.  
STOCKPORT 4206-9

**CUNNINGHAM M. & SON LTD.,**  
30 Brighton Road, Birmingham, 12.  
BIRMINGHAM SOUTH 0654

**DEMOLITION & CONSTRUCTION CO. LTD.,**  
3 St. James's Square, London, S.W.1.  
TRAFALGAR 7833

Newcastle Area Office: 38-39 Exchange Buildings, Queens Street, Newcastle on Tyne, 1.

Liverpool Area Office: 34 Moorfields, Liverpool, 2.  
NEWCASTLE 2-9068  
CENTRAL 8319

**DISMANTLING & ENGINEERING (MIDLANDS) LTD.,**  
Narrow Lane, Blackheath, Birmingham.  
BLACKHEATH 1821—5 lines

**DYGGOR CONTRACTORS LTD.,**  
Station Road, Ilkeston, Derbyshire.  
ILKESTON 1143/4177/8/9

**FLINTHAM B. LTD.,**  
Head Office: 24 Neasden Lane, Willesden, N.W.10.  
WILLESDEN 6972

Plant Depot: 6 Neasden Lane, Willesden, N.W.10.  
WILLESDEN 1333

**GOODMAN PRICE LTD.,**  
Lincoln Chambers, Portsmouth Street, London, W.C.2.  
HOLBORN 5093-4-5

**GROOM W. (TRANSPORT) LTD.,**  
102 Ravenhurst Street, Camp Hill, Birmingham, 12.  
VICTORIA 0943 and 3123

**HARDWICK F. LTD.**  
Brunel Buildings, Armley Road, Leeds, 12.  
LEEDS 23487

**HARVEY C. P. LTD.,**  
Aberavon Yard, Port Talbot, Glam.  
PORT TALBOT 3581 (after hours 2326)

**HIGHFIELD DEMOLITION CO. LTD.,**  
45 Friern Barnet Road, New Southgate, N.11.  
ENTERPRISE 7963

**HUNTER J. & SONS,**  
40-44 Duff Street, Edinburgh.  
EDINBURGH 63078 and 64370

**J. & A. DEMOLITION CO. LTD.,**  
Regents Corner, Wellington Road, Kensal Green, N.W.10.  
WEST DRAYTON 2840  
LADBROKE 3670 and 2360

**JOHN HARRIS (BERMONDSEY) LTD.,**  
9 and 9a Tranton Road, Bermondsey, S.E.16.  
BERMONDSEY 3241

**KAYLEY WILLIAM LTD.,**  
Queen Street Iron Works, Ardwick, Manchester, 12.  
ARDWICK 3281 and 3282

**KING A. A. & SONS (MORTAR MILLS) LTD.,**  
Brent Terrace, Cricklewood, London, N.W.2.  
GLADSTONE 6050 and 1515

**LEWISHAM DEMOLITION CONTRACTORS LTD.,**  
Chalk Pit Avenue Works, St. Paul's Cray, Kent.  
ORPINGTON 20326-7-8

**LOOMS ALBERT LTD.,**  
41 King Street, Derby.  
DERBY 45557

**MAIDEN THOMAS & SON LTD.,**  
Lime Kiln Lane Works, Ardwick, Manchester, 12.  
ARDWICK 2571

**MEARS EBENEZER (CONTRACTORS) LTD.,**  
Cumberland Works, Byfleet, Surrey.  
BYFLEET 45616

**MOYES H. J.,**  
75 Crouch Hall Road, Crouch End, London, N.8.  
MOUNTVIEW 3477/9

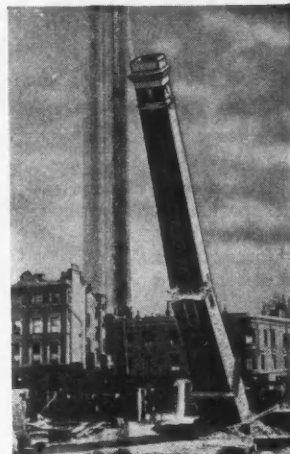
**NORTH LONDON DEMOLITION & EXCAVATION CO. LTD.,**  
2 Windmill Road, Hampton Hill, Middx.  
MOLESEY 3928

**PENFOLD W. H. & SONS LTD.,**  
Belmont Grove, Lewisham, London, S.E.13.  
LEE GREEN 2131 and 1624

**PETER SCOTT (DEMOLITIONS) LTD.,**  
107 Spies Lane, Quinton, Birmingham, 32.  
WOODGATE 2442

**PINDER S. & SONS LTD.,**  
57a Church Street, Old Basford, Nottingham.  
NOTTINGHAM 76079

**POTTERIES DEMOLITION CO. LTD.,**  
145 Etruria Road, Hanley, Stoke-on-Trent.  
STOKE-ON-TRENT 21208



**REDDITT BROS.,**  
Highfield House, Bank End Road, Worsborough Dale, near Barnsley.  
BARNSELEY 2541

**SCUDDER T. E. LTD.,**  
206-208 Western Avenue, Acton, London, W.3.  
ACORN 0656/7973

**SHARLAND B.,**  
Ongar Road, Writtle, Essex.  
WRITTLE 352

**ST. MARY'S (CONTRACTORS) LTD.,**  
273 Sussex Way, Upper Holloway, London, N.19.  
ARCHWAY 1161-3

**SPEARS (E. W.) & CO. LTD.,**  
Head Office: 53 Callander Road, Catford, S.E.6.  
HITHER GREEN 3975  
Kent Depot: 74 Crayford Road, Crayford.  
CY 21278

**TIDY S. M. (PUBLIC WORKS) LTD.,**  
161 Preston Road, Brighton, Sussex.  
BRIGHTON 59261

**TREMBLE A.,**  
Quarry Garage, Benton, Newcastle upon Tyne.  
NEWCASTLE 66-5521/2

**TURNER A. W.,**  
Pentyla Works, Pennant Street, Ebbw Vale, Mon.  
EBBW VALE 2120

**WALKER M. C. & SONS (WESTHOUGHTON) LTD.,**  
Wigan Road, Westhoughton.  
WESTHOUGHTON 3147

**WATTS J. & SONS (CONTRACTORS) LTD.,**  
Porchester Road, Thorneywood, Nottingham.  
NOTTINGHAM 55734—4 lines  
BELPER 418

**WEBSTER H. S.,**  
Phoenix Works, Tram Street, Platt Bridge, Wigan.  
WIGAN 66176

**WILLIAMS C. & SONS LTD.,**  
Victoria Wharf, 337 Lichfield Road, Birmingham, 6.  
EAST 1191

**WILLMENT BROS. LTD.,**  
462 London Road, Isleworth, Middx.  
ISLEWORTH 4311

a job for a



DEMOLITION  
CONTRACTOR



# TIMEG UNBEATABLE FOR PROTECTION AND PRICE

PROTECTIVE CLOTHING

## DONKEY JACKETS

Two Garments in one —  
waterproof & double woollen  
lined throughout,  
re-inforced seams,  
pocket corners &  
button holes —  
immediate deliv-  
ery — largest  
stocks in London

**T  
I  
M  
E  
G**



Write or phone for full lists & prices to:  
338/341 Upper St., London, N.1. CAN. 8335/8

# THOMPSON

**Group**

DISTRIBUTORS OF

## MASSEY-FERGUSON INDUSTRIAL EQUIPMENT

WACKER

VIBRO RAMMERS & PLATES  
SHAWNEE LOADERS & DIGGERS  
BARFORDS MIXERS & DUMPERS

COMPLETE SALES AND SERVICE  
FROM

GEORGE THOMPSON (BEVERLEY) LTD.  
SWINEMOOR LANE, BEVERLEY, YORKS.

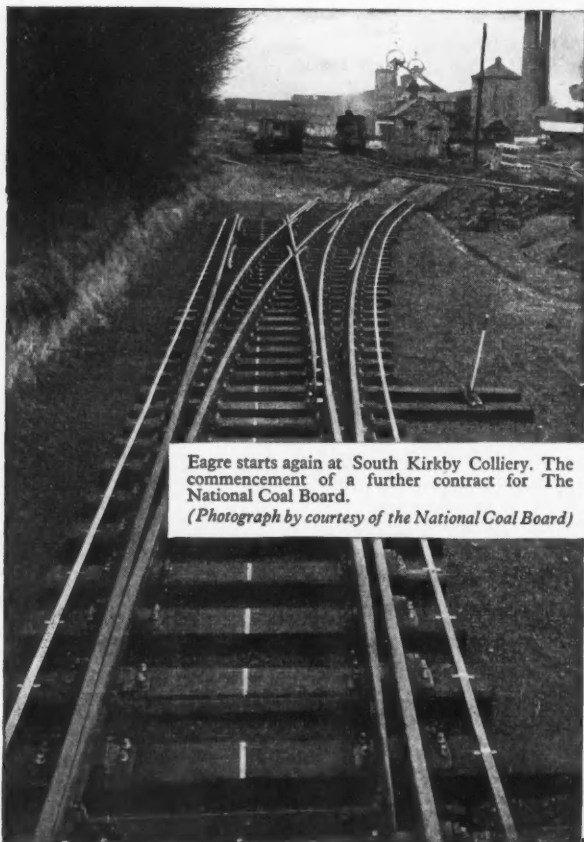
Tel. Beverley 82207

W. L. THOMPSON (Agric. & Ind. Engrs.) LTD.  
SHERBURN-IN-ELMET, YORKS.

Tel. South Milford 456

W. L. THOMPSON (Agric. & Ind. Engrs.) LTD.  
CANAL WHARF, SKIPTON, YORKS.

Tel. Skipton 2153



Eagre starts again at South Kirkby Colliery. The commencement of a further contract for The National Coal Board.

(Photograph by courtesy of the National Coal Board)

## for a complete track service

SURVEY

DESIGN

SUPPLY

INSTALLATION

**EAGRE**

Eagre's skilful planning and practical experience on railway preparation, from earthworks to the finished job, ensures that your scheme can be well and economically laid. Railway material is supplied from Eagre's own resources. Eagre also works for British Railways, the Gas Board, the United Steel Companies, Central Electricity Authority etc. Whatever the magnitude of your siding requirements, consult —

### EAGRE CONSTRUCTION CO. LTD.

East Common Lane, SCUNTHORPE, Lincs.

Telephone 4513 (5 lines)

E

# Move more at less cost with **Fordson Power**

Rear dump units are typical of the specially designed equipments which are great money-savers — when they are harnessed to Fordson Power. Fordson industrial power units cost less to buy and less to run. They have the rugged reliability essential for sustained high output on site work. They have the versatility which ensures maximum utilisation. And they are backed by the world-famous Ford service and spares organisation.

For further information on the Fordson Power Major tractor and suitable equipment, see a Fordson Tractor Main Dealer or write today to the Industrial Sales Department, Tractor Division, Ford Motor Company Limited, Dagenham, Essex.

*Fordson Power Major  
and Shawnee Poole Dumper*



Reduce your costs with profitable

**Fordson**  **Power**

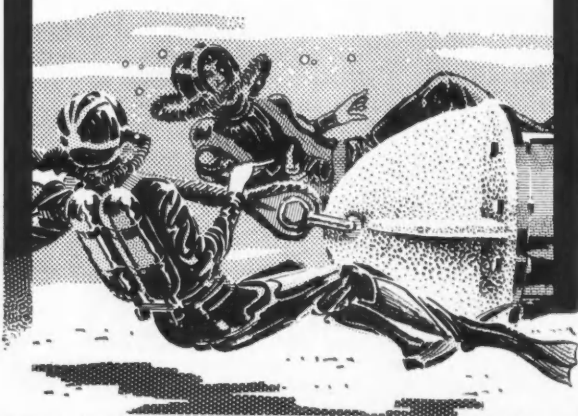
INDUSTRIAL SALES DEPARTMENT TRACTOR DIVISION FORD MOTOR COMPANY LIMITED DAGENHAM ESSEX

**The watch below** As the big pipe is inched across the sea-bed, it's reassuring to remember that Universal Divers are handling the underwater contracts on this job. Universal are widely experienced in all types of sub-marine contracting, and really have this sort of thing taped. Call them in on your next big pipe job.

### UNIVERSAL DIVERS LTD.

40 NORTH JOHN ST., LIVERPOOL 2  
CENTral 4226

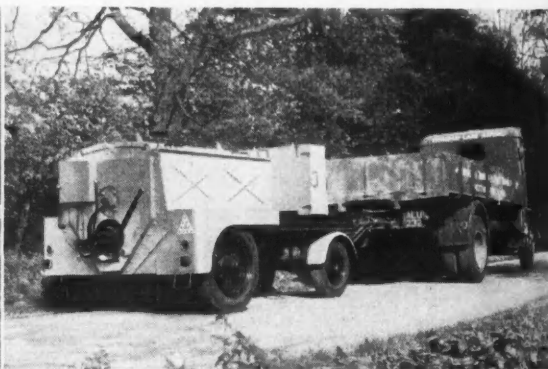
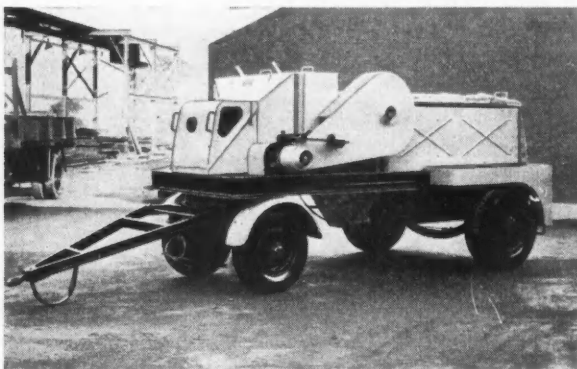
Also at Newcastle and Weymouth



# What is TURN ability ?



See the colour advertisement  
on Page via, viia.



## A gas-fired cooker that reduces hour costs

The cooker is cheaper. Its fuel costs less than coke and can be used economically. Heats 45 cwt. to 450° F. in 180 minutes. Can be kept there on tiny gas consumption. It heats evenly and is easy to handle. Maintenance cost is

more than halved. It is the most economical transporter on the market, reducing hour rates and increasing profits. It is well worth your while to know all about it. Enquiry costs nothing and will point the way to real economy.

Fully illustrated particulars and complete specification gladly sent by return.

**BRAHAM, PATTERSON & BENHAM, Ltd.**  
STRAYSFIELD WORKS, CLAY HILL, ENFIELD, MIDDLESEX.  
Telephone: Enfield 6622

# TO HIRE A

CONTACT ANY OF THE FOLLOWING  
PLANT HIRE FIRMS...



<b>20th CENTURY EQUIPMENT COMPANY (LONDON), LTD.</b> <i>Phone: Cunningham 0291</i>	<b>PARDIX PLANT ENGINEERS, LTD.</b> <b>ALL CONTRACTORS' PLANT</b> <i>Phone: Waltham Cross 23496 and 24913</i>	<b>HEAVERS PLANT HIRE (CHICHESTER), LTD.</b> <i>Phone: Chichester 2929</i>
<b>MERCANTILE MACHINERY (PLANT), LTD.</b> <b>39 Highfield Road, Dartford</b> <i>Phone: Dartford 23993/23380</i>	<b>R. A. WOOFF (PLANT HIRE), LIMITED</b> <i>Phone: Wokingham 413 or 1245</i>	<b>G. A. RAWLINSON PLANT HIRE AND EARTH MOVING</b> <i>Phone: Hatfield 2264; (Night) Welwyn Garden 6117</i>
<b>GENERAL ROADWORK, LTD.</b> <b>616 Mitcham Road, Croydon</b> <i>Phone: Thornton Heath 6989</i>	<b>GENERAL ROADWORK, LTD.</b> <b>Eastgate Wharf, Lewes, Sussex</b> <i>Phone: Lewes 2291</i>	<b>COOMBESIDE CONSTRUCTION COMPANY, LTD.</b> <b>38 Sheep Lane, London, E.8</b> <i>Phone: Clissold 9179</i>
<b>W. A. DAWSON, LTD.</b> <b>CIVIL ENGINEERS AND CONTRACTORS</b> <b>Sundon Park Road, Luton</b> <i>Phone: Luton 52203</i>	<b>EXCAVATIONS (HYDRAULIC), LIMITED</b> <b>London and Home Counties</b> <i>Phone: Orpington (MM) 31908</i>	<b>B. G. COX</b> <b>Alpha Works, Meadow Way, Letchworth, Herts.</b> <i>Phone: Letchworth 709/976</i>
<b>K. WAGER AND COMPANY, LTD.</b> <b>PLANT HIRE</b> <b>Rush Green, Hertford</b> <i>Phone: Hertford 2899 and Ware 661</i>	<b>NORMAN HILL, PLANT HIRE</b> <b>174 Twickenham Road, Isleworth, Middx.</b> <i>Phone: Isleworth 8981</i>	<b>T. H. ROBERTS, LIMITED</b> <b>EARTH MOVING CONTRACTORS</b> <b>Outwood, near Redhill, Surrey</b> <i>Phone: Smallfield 118 and 073</i>
<b>BARRIE A. HILL AND CO.</b> <b>PLANT HIRE</b> <b>"Parklands," Forest Green, Dorking, Surrey</b> <i>Phone: Forest Green 219</i>	<b>JOHN BATTAMS</b> <b>46 Zermatt Road, Thornton Heath, Surrey</b> <i>Phone: Thornton Heath 3346</i>	<b>JACK BRANCH</b> <b>Waterbeach, Cambridge</b> <i>Phone: Waterbeach 571</i>
<b>DOUGLAS-HAMILTON (CONTRACTORS), LTD.</b> <b>North Farm Road, Tunbridge Wells, Kent</b> <i>Phone: Southborough 1538</i>	<b>ALDERMAN AND SONS, LTD.</b> <b>61 High Street, Whitechurch, near Aylesbury, Bucks.</b> <i>Phone: Whitechurch 288</i>	<b>T. FORD EXCAVATIONS</b> <b>Lodge Farm, Holmwood, Dorking, Surrey</b> <i>Phone: Dorking 73112</i>
<b>W. BIRD, PLANT HIRE</b> <b>New Broad View Farm, Bedfont Road, Stanwell, Middx.</b> <i>Phone: Feltham 2364 and 3572</i>	<b>SHARPES PLANT HIRE</b> <b>8 Wangey Road, Chadwell Heath, Essex</b> <i>Phone: Seven Kings 0181</i>	<b>J. F. TAYLOR AND SONS</b> <b>114 High Road, North Weald, near Epping</b> <i>Phone: North Weald 334 (Day or Night)</i>
<b>E. R. S. FOSTER, CONTRACTORS</b> <b>58 Crown Hill, Rayleigh, Essex</b> <i>Phone: Clavering 349; Rayleigh 376 and 1211</i>	<b>F. B. SENNETT (CONTRACTORS), LTD.</b> <b>19 Second Avenue, Wisbech, Cambridge</b> <i>Phone: Wisbech 122</i>	<b>FITZPATRICK PLANT HIRE DIVISION</b> <b>455 Old Ford Road, E.3.</b> <i>Phone: Advance 2991</i>

OR  
CONTACT

# Ernest Doe

AND SONS LTD.

HEAD OFFICE - ULTING MALDON ESSEX. Tel: Hatfield Peverel 311 (Night 319)

LONDON • Therapia Lane, Mitcham Road, Croydon

TELEPHONE: THORNTON HEATH 4844 (day or night)



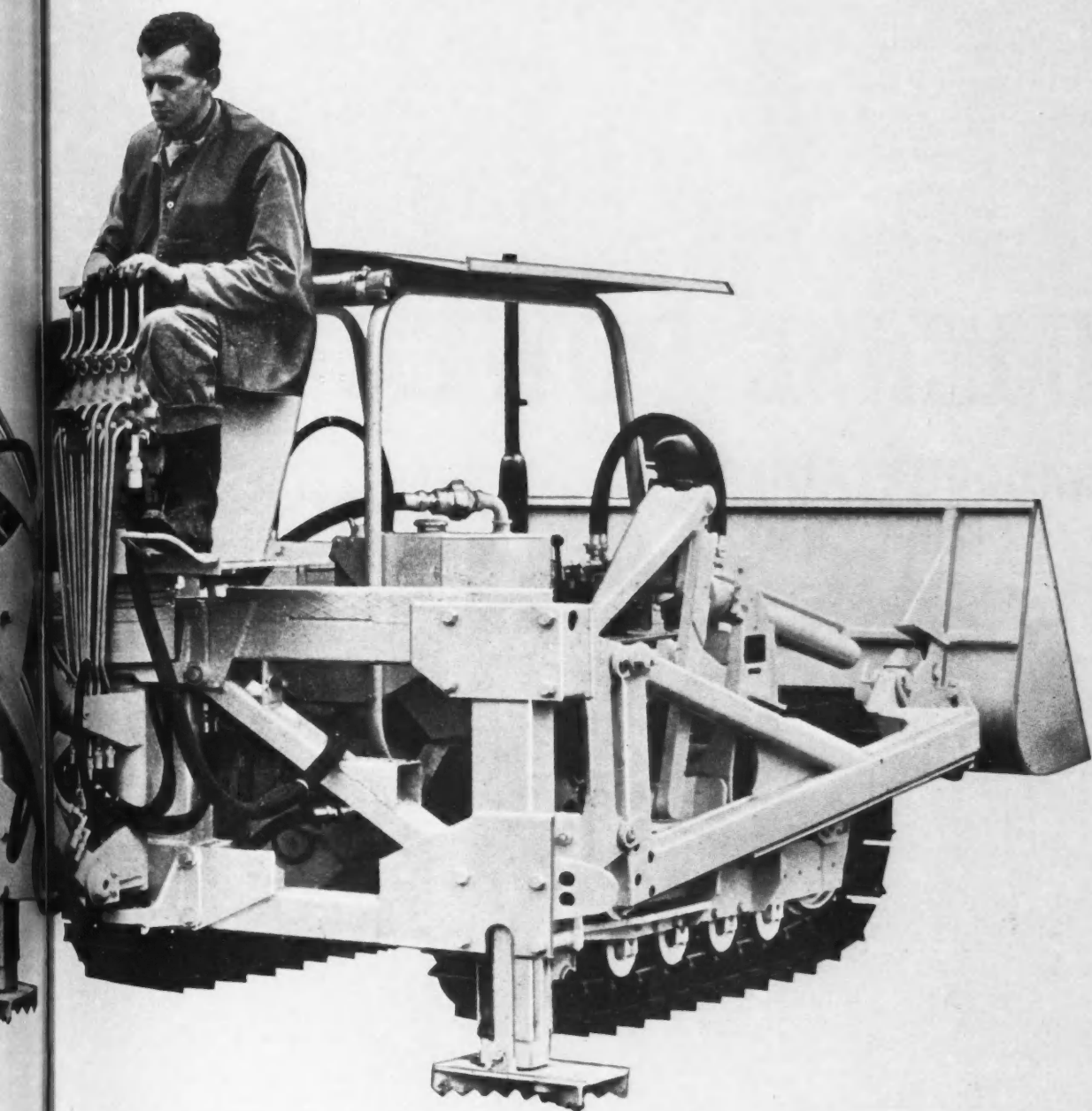
SOLE DISTRIBUTORS FOR  
London, Middlesex, Surrey, Essex,  
Hertfordshire, Bedfordshire, E. Sussex  
Kent, Cambridgeshire, Hunts,  
Suffolk and Norfolk.





**The World's MOST**

***CHEAPEST TO BUY...  
CHEAPEST TO OPERATE..  
CHEAPEST TO MAINTAIN.***



# VERSATILE Earthmovers

**H. A. SAUNDERS LIMITED**

*INDUSTRIAL TRACTOR DIVISION*

836-842 HIGH ROAD, NORTH FINCHLEY, LONDON N.12

Tel. HILLside 5272 (8 lines) Grams: Dutrax, London N.12

With the International BTD-20 you get everything—power to tackle the toughest jobs—liveliness to manoeuvre in the trickiest situations, and the famous Cripps service to ensure that this speedy giant is always on the job. With 6 forward and reverse speeds you can save hours of valuable time. A BTD-20 will enable you to tackle the biggest jobs—perfectly—profitably.



# IMMENSE POWER

& manoeuvrability

The International

**BTD-20**  
Crawler

6 SPEEDS-BOTH WAYS



- \* Six forward speeds from 1.5 to 7.0 m.p.h.
- \* Six reverse speeds from 1.3 to 8.4 m.p.h.
- \* Rolls-Royce diesel engine giving 124 net h.p. at 1,550 r.p.m.
- \* High capacity 16" overcentre twin disc master clutch.
- \* All-welded box construction track frames—the strongest ever in a tractor of this size.
- \* Completely unhindered access to maintenance points.
- \* Comfortable, easy driving with perfectly grouped control levers.

**CRIPPS** for



*For Construction Equipment—the finest on tyres and tracks!*

**R. CRIPPS & COMPANY LIMITED**

NOTTINGHAM Tel: 71161

MANCHESTER Tel: Trafford Park 1658

SHILDON Tel: 261

EST. 1891 • CONTRACTORS TO H.M. GOVERNMENT

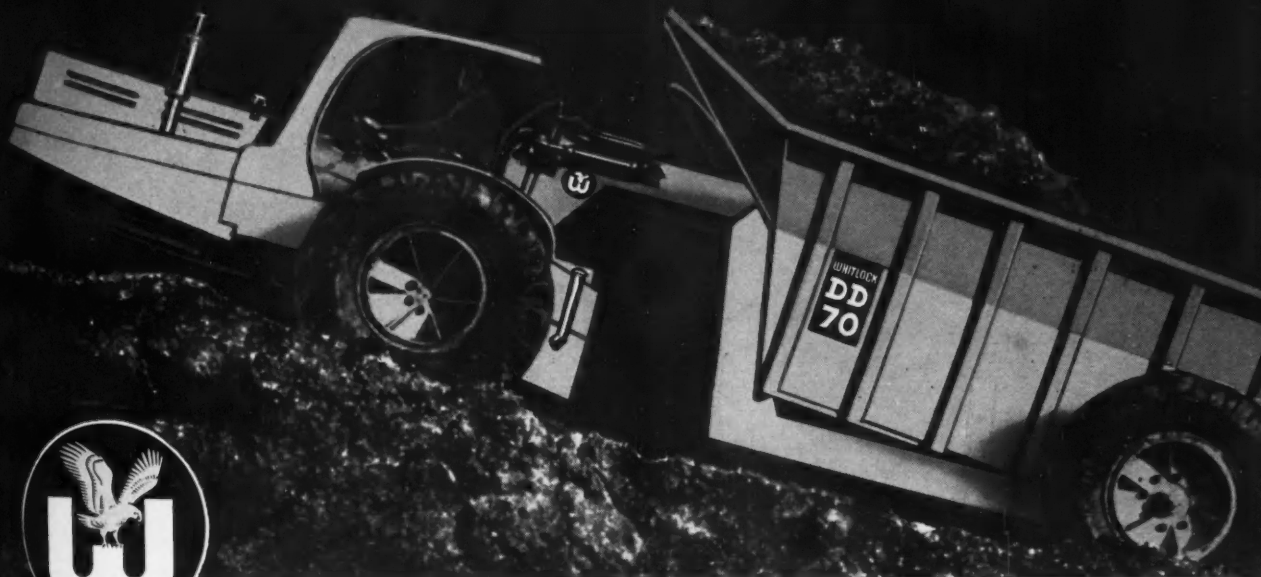
YOU CAN RELY ON OUR SERVICE • PROVED OVER 60 YEARS

**WHITLOCK**

# DINKUM DUMPER

# 70

*GOES ON -  
WHERE OTHERS GO IN!*



Main Distributors for  
NORTHUMBERLAND, DURHAM, CUMBERLAND & WESTMORLAND

**MARSHALL BRANSON LIMITED**

CHAIN BRIDGE ROAD  
BLAYDON ON TYNE, CO. DURHAM

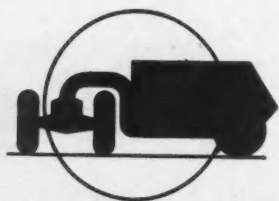
Telephone Blaydon 390 (5 lines). Telex. Blaydon 53125. Radio Controlled Service vans

**DEMONSTRATIONS · SALES · SERVICE · PART EXCHANGES · HIRE PURCHASE**

Also consult us for the complete range of WHITLOCK Hydraulic Excavators and Shov



# "110° TURN-ability



The only system  
of earthmoving haulage that gives you  
up to 110° of turn and saves up to  
50% in total operating costs

*Write today for your copy of the Shawnee-Poole book from:*

**SHAWNEE POOLE LIMITED, READING, ENGLAND**

# ***cuts cost of narrow site work''***

*says Mr. Gösta Ahner, Managing Director of Vägbyggnader i Hallsberg AB (Sweden)*



"The Shawnee-Poole system has proved ideal on the big railway construction project at Pesberg, Sweden, working in the many deep, narrow cuttings and fills. The unique 110° TURN-ability of the Shawnee-Pooles means that the excavated rock can be moved within the widths allowed for the railway itself, so we have not had to bring in any high cost special transport machinery."

The Shawnee-Poole System eliminates expensive site preparation, increases production and saves up to 50% in total operating costs.

**Let us show you by means of a  
Work-Study on your site.**

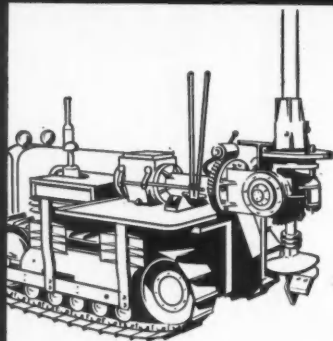
## **Shawnee Poole**

**System of MOBILITY & ECONOMY  
IN EARTHMOVING HAULAGE**



# CHESHIRE- HIGHWAY earth borer

**1,000 ft. per day ...**



Speed, reliability and easy operation gives 1,000 ft. per day *plus* on short bored piling construction with the 'Cheshire - Highway Borer'.

A Standard range of augers from 9 to 24 inches is available from stock for drilling depths up to 20 ft., but for soil survey greater depths may be achieved with specially made augers.

The Cheshire - Highway Borer is the ideal machine for —  
Telegraph and overhead electricity cable pole erection.

Soil Survey.

Soakaways, shot blast hole drilling, etc. — truck or tractor mounting with the following optional equipment :—

Rotary Table, Wiggle Tail, Hydraulically Operated Controls, Powered Winch.

For details on application from :—

**CHESHIRE ENGINEERING CO LIMITED**

YORKTOWN WORKS, CAMBERLEY, SURREY. TEL: 3421—20 LINES



## MISCELLANEOUS ITEMS, BUILDINGS, PROTECTIVE CLOTHING, FENCING, TARPAULINS, ETC.

**NOTICE.**—Orders for advertising are accepted on the understanding that the Editor may make any alterations in an advertisement to ensure its conformity with the style and standards of "The Contract Journal". The Proprietors reserve the right to suspend, cancel or refuse an advertisement without stating any reason. No undertaking is given that an advertisement will be published on any specified date. Communications which are not actual orders for advertising will not be forwarded. The Proprietors reserve the right to open communications and to withhold those not in accordance with this rule.

**FOR SALE AND HIRE. ROLLOVER CONCRETE POURING SKIPS AND CIRCULAR TIPPING SKIPS.** All types of Non-Mechanical Equipment, including FLOOR CENTRES, BEAM CLAMPS, COLUMN CLAMPS, TRENCH SHEETS AND STRUTS, SHUTTERING, FLOOR CENTRES, SPLITHEADS AND TRESTLES, Props, etc.

**PLANT AND BUILDING EQUIPMENT, LTD.,** Chathel Road, London, S.W.11. BA1Tersea 9213.

**FOR temporary roadways and compound fences, C. EVANS AND SONS, LTD.,** offer Sommerfeld TRACK, 500 rolls, each 25yd. x 10ft., interlaced at 9in. centres with 1/2in. M.S. rod; and Piersed Steel TRACK (air-laid strip), standard 10ft. x 16in. x 1/2in. First-class, re-layable. Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, E.3. Tel.: ADVance 5691/2/3.

**SECOND-HAND SECTIONAL TIMBER BUILDINGS,** 24ft. x 12ft., £102; 30ft. x 15ft., £138; 40ft. x 18ft., £192; 60ft. x 20ft., £302. Floors extra. Delivery included 100 miles. Also similar New Buildings. Lists.—UNIVERSAL SUPPLIES, Crabtree Manorway, Belvedere, Kent. Tel.: Erit 32948.

**MOBILE LIVING UNITS AND OFFICES** built to specification for Home and Overseas contracts. Write TRAILER HOMES, LTD., Shannon Corner Kingston By-pass, New Malden, Surrey.

**ACROW STEEL FLOOR CENTRES,** 1,500 available. Sizes 2, 3 and 4, for HIRE.—Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, E.3. Telephone: ADVance 5691/2/3.

**TARPAULINS for SALE AND HIRE.** EDWARD ASH, LTD., Kent Wharf, Creekside, Deptford, S.E.8. Telephone: Tideway 2661/2.

## PODMORE WORKS



**SITE HUTS OFFICES STORES**

ALL SIZES - PROMPT DESPATCH  
**PODMORE WORKS LIMITED**  
710-773, GARRATT LANE, LONDON S.W.13  
PHONES: WIMBLEDON 7623

## DEMOLITION

**HARDWARE, CLINKER & ASHES SAND, BALLAST, ETC.**

**GEO. E. CLOKE, LTD.**

In Association with  
**HUDSONS DEMOLITION BRANCH**  
"Elmsted", Neasden Lane, N.W.10  
Phone: GLADSTONE 4296-7 & 1163-6

## SPECIAL OFFER OF LARGE SIZE TUBE

10in. Tube in lengths up to 40ft.  
12in. Tube in lengths up to 40ft.  
14in. Tube in lengths up to 20ft.  
15in. Tube in lengths up to 20ft.  
16in. Tube in lengths up to 40ft.  
18in. Tube in lengths up to 25ft.  
20in. Tube in lengths up to 20ft.

All of these sizes can be supplied plain ends or flanged. Also in stock a quantity of 24in. Tube, flanged in lengths of approximately 24ft. Large stocks of smaller size Tube always available.

**MIDLAND IRON & HARDWARE CO. (Cradley Heath), LTD.,** CRADLEY HEATH, STAFFS

Telegrams: Pipes, Cradley Heath Telephone: Cradley Heath 66364-5-6

**CAST-IRON SPIGOT and SOCKET PIPING** mostly new, standard lengths. Immediate delivery  
16in. bore, 100ft. 9in. bore, 200ft.  
15in. bore, 100ft. 8in. bore, 500ft. (Screwed Gland)  
12in. bore, 500ft. 6in. bore, 500ft.  
10in. bore, 100ft.

**CAST-IRON FLANGED,** mostly new  
15in. bore, 11 x 12ft. lengths, Stanton  
10in. bore, 300 x 12ft. lengths, Stanton  
8in. bore, 200ft. in 4/9ft. lengths.  
5in. bore, 500ft. in 6/9ft. lengths.  
4in. bore, 500ft., chiefly 9ft.

Also large selection BENDS, SLUICE VALVES. Full details on request.

**FRED WATKINS (ENGINEERING), LTD.,** Coleford, Glos.

**SCAFFOLDING.**—Urgently WANTED. Steel and Alloy SCAFFOLD TUBE and all types of SCAFFOLD COUPLERS. Inquiries for Non-mechanical Builders' Plant welcomed.—Contact: SCAFFOLDING SERVICES, 69 Upton Lane, Forest Gate, London, E.7. Tel.: Gra. 2002.

**PREFABRICATED STEEL-FRAMED BUILDINGS** from stock: 30ft., 40ft., 50ft., 60ft., 75ft., 100ft. clear spans, and lengths in increments of 12ft. 6in. Sheeting may be either asbestos or galvanised.—Write for Catalogue Ref. K104, from THE LILLESALL CO., LTD., Oakenates. Telephone: Oakenates 120.

**WANTED.** Alloy and Steel TUBULAR SCAFFOLD, in large quantities only. Sites cleared anywhere. Also NON-MECHANICAL BUILDER PLANT. Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, E.3. Tel.: ADVance 5691/2/3.

**FOR SALE: 6,000 RAILWAY SLEEPERS.** Guaranteed Grade 5. Suitable for silage, roadways, buildings, bridges, machinery, etc.—Write phone or call: JOHN HILROY AND CO., 290 Shirley Road, Southampton. Telephone 76230.

**DERBYSHIRE LIMESTONE,** all grades, dry or tared up to 200 tons per day, or graded smaller sizes available, delivered to site.

**GEORGE DAVIS (HAULAGE), LTD.,** 2 Bosworth Road, Nottingham. Telephone 84819.

**SLEEPERS.**—Not We are WIDE AWAKE. For roadways, silage, machinery or re-laying. Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, E.3. Tel.: ADVance 5691/2/3.

## HARDWARE

Keen rates quoted for delivery in London and Southern Counties

**W. S. WRIGHT LTD.**  
1 Salisbury Road, Bromley, Kent  
Phone: RAV 1148-9

## Tarpaulins

Most sizes and types are stocked and special tarpaulins can be made to individual specifications. Excellent materials and fine workmanship. Wholesale only  
**AS GOOD AS A ROOF**

Please write to Tarpaulin Department  
**SINGLETON, FLINT & CO., LTD.**  
NEWLAND WORKS, LINCOLN  
Phone: 24542 (2 lines) Grams: Singleton Lincoln

## REINFORCED

## RUBBER HOSE

FOR AIR COMPRESSORS  
SUCTION & DELIVERY, ETC.

**THE CENTRAL MANUFACTURING & TRADING CO. (DUDLEY) LTD.**  
OLD HILL STAFFS

Phone: CRADLEY HEATH 69181 (5 lines)

**DERBYS**  
116 SIDDALLS RD.,  
DERBY  
Phone: 48521/2

**SOUTHERN DEPOT.**  
16 HEATH ROAD,  
ST. ALBANS  
Phone: 50721/2

**SITE GOODS.**—RAILWAY SLEEPERS, sound, second-hand 1-50, 11/9 each; 51-100, 11/3 each; 100 and over, 10/9 each. Collected by road, 10/9. Sommerfeld TRACK rolls, 25yd. long x 10ft. wide. M.S. rods, 9in. centres, £12 10s. per roll. TARPAULINS, second-hand, overhauled, rods and eyelets: 18ft. x 12ft., £6; 18ft. x 15ft., £8 15s.; 24ft. x 15ft., £10.

**A. F. SIMPSON, LTD.,** 68/70 Penge Road, South Norwood, S.E.25. Telephone: Sydenham 3131 (3 lines).

**FOR SALE.** 300 PROPS, No. 1, 2, 3 and 4. 10,000ft. Steel SCAFFOLD TUBE. 10,000ft. Alloy SCAFFOLD TUBE, random lengths. 10,000 SCAFFOLD FITTINGS, all makes. 5,000 PUTLOGS, Steel and Alloy, 5ft. and 6ft. 1,000 SCAFFOLD BOARDS, new, 12ft. and 13ft. KILBURN AND BANKS, LTD., 2 Springfield Lane, Kilburn, N.W.6. MA1. 2748, 3578.

**GREASE GUNS,** heavy duty, 70 per cent. off list price. Tecalemit, 29'50". Flexible tube, hexagon head, hand lever operated. Brand new condition, 60/- each, six at 55/-, 20 at 48/- Hydraulic head, 10/- extra.

**CROMWELL CO.,** Newport, Mon. 59045.

**STEEL-FRAMED BUILDING** for SALE, size 125ft. x 80ft. x 16ft., in two bays of 40ft. span, in excellent condition. 96ft. x 35ft. ROMNEY HUT. Also 40 28ft. span STEEL TRUSSES, 5ft. rise, in good condition.—BEDS. DISMANTLING AND DEMOLITION CO., 3 Lurke Street, Bedford. Tel. 66033.

**WANTED.** used Corrugated Steel SHEETS, from 4ft. and up, 22-gauge or heavier. Also Anderson and Elephant SHEETS. Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, E.3. Tel.: ADVance 5691/2/3.

**NEW ROADFORM PINS** for SALE. Made to your specifications, 1in. or 1/2in. dia.—TEMPLE MILLS (STEEL), LTD., Temple Mills Lane, Stratford, E.15. Tel.: Maryland 2660/734.

**TRUSCOIT FENCING, LTD.,** DORKING SURREY. Telephone 3416. All classes of FENCING supplied and erected. Specialists in Chain Link. Estimates free.

**WANTED:** Second-hand GRANITE KERB SETTS, BLOCKS; also PAVING, any quantity. Full details, write Box F.H.987, "The Contract Journal".

## GRANITE SETTS

DELIVERED ANYWHERE

**HARRIS & BAILEY LTD.**  
CROYDON

ADDISCOMBE 3181 Ref: Mr. T. A. Jones

## SCAFFOLDING &amp; PLANT

From stock, reconditioned and new. We can offer a continual supply and service of:

**SCAFFOLD TUBE (Steel and Alloy)**  
**PUTLOGS (Steel and Alloy)**  
**FITTINGS • "H" FRAMES**  
**BOARDS • PROPS • STRUTS**  
**TRESTLES AND SPLITHEADS**  
**FLOOR CENTRES**  
**COLUMN AND BEAM CLAMPS**  
**ROAD FORMS**

For detailed list of above and all other items of stock contact:

**C. EVANS & SONS LIMITED**  
BURNSIDE WHARF, BURNSIDE STREET, BOW, LONDON, E.3  
Telephone: ADVance 5691 (3 lines)

## HIRE LADDERS

UP TO 80FT. EXTENDED

**TOWER LADDERS**  
UP TO 35FT. WORKING HEIGHT  
**POLE LADDERS**  
UP TO 80 RUNGS  
**TRESTLES & STEPS**

FROM

**JOHN MACNAMARA & CO. LIMITED**

BUSH ROAD, LONDON, S.E.8  
BERMONDSEY 3275 & 1435

## FENCING

**W. A. SKINNER & CO. LTD.**

LONG DITTON, SURREY  
Phone: EMBERBROOK 1960-196

SUPPLIED AND ERECTED IN ANY DISTRICT



## MISCELLANEOUS ITEMS, BUILDINGS, PROTECTIVE CLOTHING, FENCING, TARPULINS, ETC.

**FOR SALE—FROM STOCK.**  
Prime REINFORCING RODS to B.S.S. 785, 5-gauge and 1/2in. Forward deliveries on other diameters.  
300 tons new and second-hand R.S.J. and CHANNELS, 1,000 tons new and second-hand CORRUGATED SHEETS.

Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, E.3. Tel.: ADVANCE 5691/2/3.

**FOR SALE.** Contents of CONTRACTORS' STORES, including Dumpy Level, Stainless Steel Draining Boards, Glazed Tiles, Hardboard, Miscellaneous small Timber, Tilly Lamps, Locks, Handles, Wall Ties, etc. Further details from:—

PLANT AND BUILDING EQUIPMENT, LTD., Chatfield Road, London, S.W.11. BATTERSEA 9213.

**FOR SALE.** 10 tons R.S.J.s, 7in. x 3 1/2in., lengths approx. 9 1/2ft., painted red.—Apply: KILBURN AND BANKS, LTD., 2 Springfield Lane, Kilburn, N.W.6. Tel.: MAI. 2748 and 3576.

**FOR SALE.** 1,000 SLEEPERS. Suitable for temporary roads.—KENNETH SHEPLEY, 73 Boadice Street, Ashton-under-Lyne, near Manchester. ASH 3338.

**ONE HUNDRED** Heavy Oak TIMBERS, 6ft. long, 12in. x 12in., first-class condition, 30/- each. L. W. VASEY, LTD., Amptill, Bedford. Telephone: Amptill 3255/6.

**WANTED.** TRENCH SHEETS, Acrow PROPS, any quantity.—Contact C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, E.3. Tel.: ADVANCE 5691/2/3.

**LATTICE STEEL ERECTION MASTS** (Light and Heavy), 30ft. to 150ft. high, for immediate HIRE. BELLMAN'S, 38 Cornwall Gardens, London, S.W.7. Telephone: Western 3033.

**WANTED:** CORRUGATED STEEL SHEETS, Second-hand. Any area. Sites cleared. Prompt payment.—J. DUFFY, Bank Street, Clavton, Manchester, 11. Telephone: East 3361.

**WANTED.** BRICK and CONCRETE HARDWARE, any quantity.—R. BARKER (PECKHAM), LTD., New Cross 3337.

**STEEL ROOF TRUSSES.** 50ft. span, £30 each. S. J. T. LEAVESLEY, LTD., Alrewas, Staffs. Telephone: Alrewas 354/5/6—Ext. 5.

## TARPULINS

EX STOCK ALL SIZES  
Also OILSKINS. Prices from PODMORE WORKS  
769/773 Garratt Lane, S.W.17. Tel: WIMBLEDON 7622

**SLEEPERS—RELIABLE & ROADWAY CROSSING TIMBERS—ALL SIZES DELIVERY ex STOCK**

**F. HARDWICK LTD.**

ARMLEY ROAD, LEEDS 12. Phone: 23487

**BEFORE DECIDING, view this plant**  
Immediate delivery and terms arranged.

**FOR SALE:**  
100,000ft. STEEL SCAFFOLDING TUBE; 5,000 FITTINGS, all serviced; 2,000 BLADE-END PUTLOGS, 50ft. and 150ft. high; 500 Acrow Type PROPS; 500 TRENCH PROPS; 10,000ft. SCAFFOLD BOARDS, fully bound; also 1,000 JOINT PINS, almost new. Immediate delivery.

M. SANDERS, LTD.,  
18/20 Medlar Street, London, S.E.5. ROD. 5143  
(side of the Regal Cinema, Camberwell Green)

## TARPAULIN HIRE

**JOHN MACNAMARA & CO. LTD.**  
BUSH ROAD, LONDON, S.E.8  
BERMONDSEY 3275 & 1435

## CAMBRIDGE ASPHALTE CO. LTD.

SWANN ROAD, CAMBRIDGE

Telephone: 2606 & 55621/2

ALSO.

**FLEXIBLE ROOFING PITCH MASTIC**

All Grades Tarred and Dry Limestone, Hardcore, Ashes, Red Shale, Concrete Aggregates, High Grade Screened Building Sand delivered in the Midlands, Nottingham area or F.O.R. Capacity 750 tons daily, hopper loaded, weighbridge on site, 4 miles from Nottingham.

**SHENINGTON QUARRIES LTD.**

2 BOSWORTH ROAD, NOTTINGHAM

Telephone - Nottingham 84819

**SOUND SECOND-HAND PLANT.**  
1,000 No. 1 Acrow PROPS, 39/6 each; 500 No. 2 Acrow PROPS, 45/6 each; 20,000ft. 13/21ft. Steel SCAFFOLDING, 1/3in. x 1/2in.; 100,000 shorter lengths 1/2in. x 1/2in. S/H SCAFFOLD BOARDS, 1/3in. x 1/2in., all lengths F. SIMPSON, LTD.,  
68/70 Penge Road, South Norwood, S.E.25  
Telephone: SYDENHAM 3131 (3 lines).

**NISSEN TYPE HUTS for SALE.** Prompt despatch of 16ft., 24ft. and 30ft. wide Huts; also Romney HUTS, 35ft. wide, and BLISTER HANGARS, 86ft. 6in. and 91ft. wide. These buildings are in various lengths, and comprise steel framework with galvanised corrugated steel sheeting.—Full details from Dept. (128), J. THORN AND SONS, LTD., Brampton Road, Bexleyheath, Kent. Telephone: Bexleyheath 0021.

**WANTED.** Steel SECTIONS, REINFORCING RODS, etc. CORRUGATED SHEETS. Inspection anywhere. Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, E.3. Tel.: ADVANCE 5691/2/3.

**FOR SALE.** 70,000 Mills ex Government Type 90° SCAFFOLD COUPLERS in stock, 3/- each. Carriage paid up to 150 miles for orders of 100 or more. J. T. LEAVESLEY, LTD., Alrewas, Staffordshire. Telephone: Alrewas 354/5/6.

**TARPULINS (Repaired) and REROPED SHEETS** in all sizes. Also Decorators' DUST SHEETS. For the cheapest: KENNETH SHEPLEY, 73 Boadice Street, Ashton-under-Lyne, near Manchester. ASH 3338.

**SLEEPERS** for access roads and all purposes. TIMBERS for shoring, piling and walling. Consult us first.—TRACK SUPPLIES AND SERVICES, LTD., Horton, Northants. Telephone: Hackleton 240.

**WANTED.** Braithwaite SECTIONAL TANKS or LOOSE PLATES, 4ft. square, 1/2in. to 1/2in. thick.—FRED WATKINS (ENGINEERING), LTD., Coleford, Glos.

**BELLMAN HANGAR** for SALE, 175ft. long x 95ft. clear span, steelwork first-class, £2,325 delivered your site.—MOLE AND BRAY, LTD., Stourport-on-Severn.

**FOR SALE.** approx. 3,000ft. of Bolted Steel SECURITY FENCE in 8ft. 6in. x 8ft. 6in. sections. F. JAMES AND SONS, Newport Pagnell 18 and 19.

## PIPES

2,000ft. 6in. Medium Tube, Plain and Screwed. 2,000ft. 6 1/2in. o.d. x 5-gauge Seamless Tube, Plain. 1,000ft. 6in. Victaulic Tube, with Couplings. 10,000ft. 2 1/2in. Screwed and Socketed, rand. lengths.

**DOWNINGS (BARNSELEY), LTD.,**

Doncaster Road, Barnsley, Yorkshire.

Telephone: Barnsley 3603/4/5.

## SOMMERFELD TRACKING

Sound S/H, approx. 25yd. rolls, 10ft. wide, reinforced every 9in. with 3/16in. M.S.R., £12 10s. per roll. C.P. London area, or 10-roll lots throughout England.

A. F. SIMPSON, LTD.,

68/70 Penge Road, London, S.E.25.

Telephone: SYDENHAM 3131/5.

ALL SIZES—PROMPT DESPATCH

## HUTS

THE PODMORE WORKS

769-773 GARRATT LANE, LONDON, S.W.17

Keen Prices—Phone: WIMBLEDON 7622

## SALE or HIRE

ROAD FORMS ALL TYPES  
PROPS Numbers 1, 2, 3, 4  
Trench Struts Nos. 1, 2, 3  
Column Clamps  
Trench Sheetting



**RAPID METAL DEVELOPMENTS LTD.**

Birmingham—Birchfields 6021 Swansea 50464

London—Tideway 3625 Exeter 63595

Glasgow—Bridgeton 4214 Farnham 2017

Stockton-on-Tees 64150 Belfast 24591

Liverpool—Simonswood 2482 Dublin 34456

**FOR SALE.**  
500 tons re-livable 75lb. per yd. F.B. RAIL in 36ft. lengths, with naphlates and naphlates, etc. to suit.  
20 CROSSINGS in re-livable 75lb. per yd. F.B. RAIL with all necessary fittings.  
100 tons of re-livable 95lb. per yd. B.H. RAIL in 60ft. lengths, with naphlates to suit.  
2,000 re-livable CHAISED SLEEPERS suitable for 95lb. per yd. B.H. rail.

EDWARD ASH, LTD.,

Kent Wharf, Creekside, Deptford, London, S.E.8.

**EVANS OF BOW OFFER.**

TRENCH STRUTS, second-hand, Nos. 1, 2, 3. TRENCH SHEETS, new. 5 1/2in. 6in. 8in. x 10ft. ROADFORMS, heavy duty, 5 1/2in. 6in. 8in. x 10ft. 1,500 in stock. First-class condition.

New ROADFORM PINS.

Contact: C. EVANS AND SONS, LTD., Burnside Wharf, Burnside Street, Bow, E.3. Tel.: ADVANCE 5691/2/3.

**ASK AN FUCHS**  
for New or Second-hand PROPS, BEAM CLAMPS, COLUMN CLAMPS, TRENCH STRUTS, ROADFORMS, SCAFFOLD TUBES and Fittings.

Also additional equipment not listed.

87-89 Walton Street, S.W.1.

Telephone: Kensington 8526.

**SHALE HARDWARE, also SCREENED SHALE** for sports grounds, road construction, French drains, etc. Supplies in various parts of Great Britain. Particulars and quotations from: WARWICKSHIRE QUARRIES, LTD., Bedworth Road, Nuneaton. Telephone: Coventry 67821.

**FOR SALE.**

20,000ft. of SCAFFOLD TUBE, sound used cond.

2,000 PUTLOGS and 10,000 Overhauled FITTINGS.

PLANT AND BUILDING EQUIPMENT, LTD.,

Chatfield Road, London, S.W.11. BATTERSEA 9213.

**STEEL SECTIONS and PLATE, etc.** Cut to your specification. New and second-hand material available.—TEMPLE MILLS (STEEL), LTD., Temple Mills Lane, Stratford, E.15. Maryland 2660/7724.

**FOR SALE.** NISSEN HUTS, 36ft. x 16ft., black, iron-sheeted, £60 each.—F. JAMES AND SONS, Newport Pagnell. Tel. 18 and 19.

**MUCK SHOOTS** in Mill Hill and Southgate, London. For details, phone Bowes Park 2402.

**CONTRACTORS' AND BUILDERS'**

## TOOLS

**JOHN MACNAMARA & COMPANY LIMITED**

BUSH ROAD, LONDON, S.E.8.

BERMONDSEY 3275 & 1435

REGULAR QUANTITIES  
HIGH GRADE CLINKER ASH  
FOR SALE—F.O.R. OR F.O.L.  
BARNSELEY, YORKS. AREA.

APPLY:

**GRANT, LYON & CO. LTD.**

SCOTTER ROAD, SCUNTHORPE, Lincs.

TELEPHONE 2308.

## RAILWAY SLEEPERS

10,000 in stock

**BEFORE ORDERING RAILWAY MATERIALS OF ANY KIND**

WRITE OR TELEPHONE:

**E. L. PITT & CO. (Coventry) Ltd.**

BRACKLEY TOWN STATION,

BRACKLEY, NORTHANTS.

Telephone: BRACKLEY 2271/2

Telex: 83159

## TARPULINS

NEW, GREEN, ROT-PROOFED, SEAMS DOUBLE-THREADED WITH BEST LINEN REINFORCED BRASS EYELETS, SPICED ROPES

Size approx.		Weight before proofing:		
		(16oz.)	(18oz.)	(15in.)
12ft. x 9ft.	-	£3 3 0	£4 9 6	£4 10 0
15ft. x 9ft.	-	£3 18 9	£5 12 0	£6 3 9
15ft. x 12ft.	-	£5 5 0	£7 9 6	£8 5 0
18ft. x 12ft.	-	£6 6 0	£8 18 9	£9 10 0
18ft. x 15ft.	-	£7 17 6	£11 5 0	£12 7 6
20ft. x 15ft.	-	£8 15 6	£12 11 6	£13 15 0
24ft. x 18ft.	-	£12 12 0	£17 18 6	£19 10 0
30ft. x 21ft.	-	£18 7 6	£25 17 6	£28 17 6

EX-GOVERNMENT, RECONDITIONED	
10ft. x 7ft.	- £1 15 0
10ft. x 10ft.	- £2 10 0
14ft. x 10ft.	- £3 10 0
15ft. x 12ft.	- £4 15 0
20ft. x 10ft.	- £5 10 0
18ft. x 12ft.	- £5 15 0

GENUINE EX-RAILWAYS, RECONDITIONED	
10ft. x 7ft.	- £1 10 0
10ft. x 10ft.	- £2 5 0
14ft. x 10ft.	- £2 17 6

All sheets are eyeleted and roped.

Immediate delivery — Carriage paid.

Money refunded if not satisfied.

**MORELAND TRADING Co. Ltd. (C)**

25 St. Pancras Way, London, N.W.1.

Telephone: EUSTON 5210 and 2385

## MISCELLANEOUS ITEMS, ETC.

**NEW SCAFFOLD BOARDS.**—Selected Swedish Whitewood: 1-12 boards, 1/9 1/2 ft.; 13 to 50 boards, 1 1/2 ft.; 51 to 100 boards, 1 5/8 ft.; 100 boards or over, 1 3/4 ft. With 1 in. x 20-gauge galvanised hooping and binding. Quantities over three standard—prices on application. Delivery from stock, carriage paid 25-mile radius.—H. C. HILL, LTD., 68-70 Penge Road, South Norwood, S.E.25. Telephone: SYDenham 3131/4.

**NISSAN TYPE HUTS,** 16ft., 24ft. and 30ft span, clad new or second-hand sheeting. Also new galvanised NISSAN SHEETS for SALE, all standard sizes.—NAYLOR'S (BILSTON), LTD., 204 Wolverhampton Street, Bilston 41689.

**SLEEPERS.**—100 tons Crossing Sleepers, from 9ft to 13ft lengths. J. A. K. SHEPLEY AND CO. LTD., 6 Meadow Street, Manchester, E.1. ARDwick 2256

**FOR SALE: SCAFFOLD MATERIALS** For keen prices, service and quality. Contact: C. EVANS AND SONS, LTD., Burnside Wharf Burnside Street, Bow, E.3. Tel.: ADVance 5691/2/3

**FOR SALE: NEW ROADFORM PINE** 1 in. or 1 1/2 in. dia. x 2 ft. long.—TEMPLE MILLS (STEEL), LTD., Temple Mills Lane, Stratford, E.15. Tel.: Marvland 2660/7734.

**WANTED:** all items of NON-MECHANICAL BUILDERS' PLANT. Sites cleared by arrangement. PLANT AND BUILDING EQUIPMENT, LTD., Chatheld Road, London, S.W.11. BATTERSEA 9213.

**EDWARD ASH, LTD.****FOR RAILWAY SLEEPERS****AND CROSSING TIMBERS**

KENT WHARF OREKESIDE, DEPTFORD, SE8

Telephone: TIDeway 2861-2

**ELECTRICAL, SPARES AND OVERHAULS, VEHICLES AND ANCILLARIES****TRAILERS**

25' Semi-trailers, Scammell and all types new and reconditioned immediately available. 200 always in stock.

**E. C. G. TRAILERS LTD.**

96 Hackford Road, S.W.9 Telephone: RE 3853

**COACH SPECIALISTS of the SOUTH**

always have available a

**Large stock of Good Used PASSENGER VEHICLES**

many with C.O.F.s

Ideal for conveyance of staff

Yearly Road Fund Tax £12.10.0

BEDFORD 26 str. Coaches from £75

or suitable for SITE OFFICES, from £50

A.E.C., LEYLAND, etc., 33/35 str. from £100

Let us demonstrate at your premises

**E. J. BAKER & CO. (DORKING) LTD.**

The Coach Works, Farnham Trading Estate, Farnham, Surrey. Telephone: 4626/7

**ELECTRICAL EQUIPMENT, SPARES AND OVERHAULS, VEHICLES AND ANCILLARIES****RUSTON POWER TO SERVE YOU**

From stock: SERVICE EXCHANGE ENGINES. Type VRON, VROHN, VRHN, VQBN, VPHN, YEN, VCBN.

Full range of ENGINES from 10RB to 54RB Excavators. SERVICE EXCHANGE ENGINES also stocked for Cranes, Locos., Pumps, Power Packs, etc. CHANGEOVERS to EXCAVATORS and other PLANT UNDERTAKEN on site by STAFF of competent FIELD ENGINEERS.

TILSLEY AND LOVATT, LTD., Engine and Plant Div., Newstead Trading Estate, Trentham, Stoke-on-Trent.

Telephone: Trentham 57331 and 57332.

Telegrams: "Diesel" Stoke-on-Trent.

**FOR SALE,** 1949 Scammell ARTIC., very good condition, air brakes, recent £600 overhaul by makers, tyres, S.A.E. coupling. With 25ft. bed Semi-low-load Trailer, 20-ton capacity, tandem axle. £1,750 the lot. Additional Trailers as above at £600 each.—Ring: FAREY, WORDSWORTH 1805. Write: 3 Melbury Road, Kenton, Harrow, Middlesex.

**FOR SALE,** 20-ton LOW-LOADER, Ovon Artic. Trailer and A.E.C. Matador 4 x 4 Tractor Unit. Price £1,000.—W. ELLIOTT AND SONS (YORK), LTD., 67 Wetherby Road, York. Tel.: York 78220. After hours—York 7119.

**BRISTOL ANGLEDOZERS AND EQUIPMENT.** Immediate SPARES and REPAIR SERVICE for all models.—H. A. SAUNDERS, LTD., Main Distributors, The Butts, Worcester. Telephone 26651.

**ONE 9-kVA 240-Volts Petrol driven GENERATOR** for SALE, £35 or near offer.—Write Box E.3124, "The Contract Journal."

**CATERPILLAR TRACTOR AND RUSTON EXCAVATOR OWNERS**

Should ring Axworthy and Co., Ltd., at Windsor 60668 for unused Caterpillar and Ruston SPARES from the large and comprehensive stocks available. Prices are well below list and mean substantial savings. Dispatch ex stock. Panic service in emergencies.

**AXWORTHY AND CO., LTD.**

(Droths for Hire).

Old Windsor, Berks. Telephone: Windsor 60668.

**FOSTER WHEELER, LTD.**

TENDERS are invited for the PURCHASE of the FOLLOWING VEHICLES:

F.W.92.—5-ton Bedford Dumpcrete, Diesel, Chassis No. 24269, Engine No. D4/S 61/25169.

F.W.110.—5-ton Bedford Dumpcrete, Diesel, Chassis No. D5SC1 24271.

F.W.59.—Ford Thames Trader, fitted with 4 x 4 A.W.D. conversion chassis, No. 05143/1, Engine No. 510E/12798, Tipper make, Teleholst, Serial No. chassis 4183, body 20324. Unladen weight 4 tons 1cwt. 14lb.

F.W.60.—Ford Thames Trader, fitted with 4 x 4 A.W.D. conversion chassis, No. 05143/2, Engine No. 510E/12809, Tipper make, Teleholst, Serial No. chassis 41830, body 20325. Unladen weight 4 tons 1cwt. 14lb.

These can be view by appointment.

**FOSTER WHEELER, LTD.,**

c/o Oil Refinery, Milford Haven, Pembrokeshire. Phone: Milford Haven 971—Extension 3.

MAIN DEALERS IN THE NORTH



SERIES 71 &amp; 110 PARTS AND EXCHANGE UNITS

**F. MITCHELL (NOTTM.) LTD.**

DERBY ROAD - NOTTINGHAM

Telephone: 77701 Day or Night

**MATHEW BROTHERS**

ARE SO HELPFUL FOR

**DIESEL GENERATING SETS**

SALE OR HIRE

YOUR ENQUIRIES WELCOMED



"MatBro" House, Beddington Lane, Croydon, Surrey.

THOrnton Heath 3402-3-4

**CYLINDER HEADS.**—Caterpillar, International, Ruston, Diamond T, S.M.C., A.E.C., Gardner, etc., perfectly repaired by our special "FUSION WELDING PROCESS," no matter how badly cracked. Finished, machined, standard. Also Repairs to Crankcases, Sumps, Differentials, etc. Axles, rear and front, reconditioned. Exchange P6, R6, P4 Heads. Established 40 years. Satisfaction guaranteed.—ANGELL AND WILLIAMS (PECKHAM), LTD., Sumner Road, S.E.15. Telephone: RODney 3559.

**SPARES FOR SALE.** 10RB Muir-Hill Dumpers. C.P.T. Compressors. Blaw Knox 125.

List prices less 40 per cent. discount for complete lots. Lists on application.

WILSON PLANT HIRE, LTD., Weeden Rd., Northampton. Tel.: Northampton 4653/4.

**LEACH** for Kango Electric HAMMERS, OFF-THE-SHELF SERVICE for new TOOLS, SPARES and ACCESSORIES. 48-hour overhaul service.—HUBERT C. LEACH, LTD., High Street, Chesham, Hertfordshire. Telephone: Waltham Cross 25161.

**DIESEL ALTERNATOR SETS** from 75-kW to 450-kW in stock. We also PURCHASE DIESEL ENGINES and GENERATING SETS.—SIPPY, 118 Pepys Road, London, S.W.20.

**TWO 2100 x 25 WHEEL and TYRE ASSEMBLIES,** 16-ply, relugged, £90 each.

**10 1200 x 24 TYRES,** 8-ply, unused, £22 each.

**L. W. VASS, LTD.,** Ampthill, Bedford. Ampthill 3255/6.

**LIMA 802 and Marion 111M SPARES** for SALE. BRADSHAW BROS. (CONTRACTORS), LTD., 117A Loughborough Road, Leicester.

**SPEED YOUR WINTER CONTRACT** with our SLIGHTING SETS.—RYE-ARC, LTD., Telephone: ALBERT Dock 4381.

**RUSTON & PAXMAN SPARES!**

Dispatched "same-day" to anywhere in the U.K.

By the Official Stockists:

**Wheatley & Whiteley**

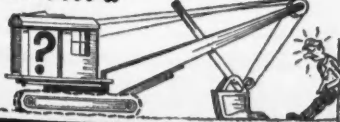
99 KIRKSTALL ROAD, LEEDS 3

Tel. 31122 Spares only Tel. 20124

**SPARES & SERVICE****J. GIBBS LTD.**

BEDFORD, FELTHAM, MIDDX.

FELTHAM 5071

**WAITING**

... Obviously not OUR Customer!

**RUSTON-SERVICE**

EXCHANGE ENGINES INSTALLED IN ALL TYPES OF PLANT DURING WEEK-ENDS OR TO SUIT CUSTOMER'S CONVENIENCE

**TILSLEY & LOVATT LTD.**

ENGINE &amp; PLANT DIVISION NEWSTEAD TRADING ESTATE

**TRENTHAM, STOKE-ON-TRENT, STAFFS**

Telephone: Trentham 57331/3

Grams: "Diesel" Stoke-on-Trent

## ELECTRICAL EQUIPMENT, SPARES AND OVERHAULS, VEHICLES AND ANCILLARIES

**FOR SALE.**  
1400 x 20 WHEEL ASSEMBLIES (Wheel, Tyre, Tube), from £25.  
New 1400 x 24 20-ply India and Dunlop Power Grip, £95.  
New 1600 x 20 Dunlop 16-ply Earthmover, £75.  
New 1800 x 24 Goodyear, etc., 16-ply/2 shock pads, £95.  
New 900 x 16 Dunlop Track Grip, £12 10s. each.  
New 600 x 16 Track Grip Michelin, £5 15s.  
New 600 x 16 Road Tread, £5 7s. 6d.

**J. T. LEAVESLEY, LTD.,**  
Airewas, Staffordshire. Telephone: Airewas 354/5/6.  
**SPARES.**—We have available SPARES from the following machines. Substantial discount from list prices:—  
12yd. Le Tourneau Scraper, Model LP.  
Le Tourneau Winch, Type T.  
D8 Caterpillar Tractor Spares, Series 8R, 2U, 13A, 14A, 15A.  
1201 Lima Excavator.  
Write Box E.3173, "The Contract Journal."

**FODEN LOW-LOADER.** 25-ton, knock-out wheels, 6LW Gardner, new coachbuilt cab, for SALE, or EXCHANGE 10/12-ton LOW-LOADER.—BRUNSTON PLANT HIRE, LTD., Whickham Banks, Whickham, Newcastle upon Tyne.

**FOR SALE.** Ruston 8-h.p. Radiator-cooled DIESEL ENGINE on steel trolley, direct coupled to Mono 3in. Pump, little used. Price £75.—M. BLOOMFIELD AND SONS, Debenham 353/4.

**WANTED.** a number of Petter DIESEL AVA2 ENGINES, with or without clutch.—NORMAN WALKER (MACHINERY), LTD., Anlaby, Hull.

**WANTED.** DUKW in good working order.—Full details to: H. WARREN, 60 Northern Road, Cosham, Portsmouth.

**BALL AND ROLLER BEARINGS**  
FOR ALL CONTRACTORS PLANT  
BRITISH • AMERICAN • CONTINENTAL

Any quantity despatched same day.

**A.C. BEARINGS**  
248 KNIGHTSBRIDGE S.W.7



KNI 4377  
KEN 9602

## FRANK COWLEY 200

DEPENDABLE BUSES AND COACHES FOR  
YOUR INSPECTION AND TEST

ALL VEHICLES CAN BE TAXED AT  
£12 10 0 PER YEAR

**1957 DAIMLER** Single-deck Bus, with sliding front entrance, by Charles Roe, powered by Gardner 6LW Engine. This machine is guaranteed 51,000 miles only since new, and is in super condition throughout, £750.

**1952 A.E.C. Mk. IV** underfloor-engined 39- and 36-seater Full Luxury Coaches, all in excellent condition and ready for immediate service, £1,150 each.

**1948 A.E.C.** 34-seater Service Buses, front entrance, Willowbrook bodies, powered by A.E.C. 7.7 Diesel Engines, all in unmarked condition, £325 each.

**1948/49 LEYLAND** PS1 34-seater Service Buses, front entrance, powered by Leyland PS1 Diesel Engines, £275 each.

**1947/48 A.E.C.** High Bridge Double-deckers, with A.E.C. 7.7 Diesel Engines, an exceptionally clean fleet and excellently maintained, £325 each.

**1948 A.E.C.** Low Bridge Double-decker, fitted with A.E.C. 9.6 Diesel Engines, a very fine machine ready for immediate work, £325.

**1944/45/46 GUY** Low Bridge Double-deckers, all fitted with very modern 8ft. wide bodies, in extremely nice condition, powered by Gardner 5LW Diesel Engines, £295 each.

**1949 BRISTOL** 32-seater Coaches, powered by Gardner 5LW Diesel Engines with five-speed gearboxes, £325 each.

**LEYLAND** High and Low Bridge Double-deckers, 1949 and 1950 bodies, excellent and very clean throughout, £225 each.

All the above vehicles carry out three months' guarantee and are fitted with good serviceable or new batteries.

Write for latest stock list, also special spare part price list showing saving of 75% on spares.

WILL TAKE YOUR OLD VEHICLE IN  
PART EXCHANGE

**FRANK COWLEY**

3 Blackfriars Road, Salford, 3

Phone: MANCHESTER BLACKFRIARS 7577  
and BLACKFRIARS 1048

**TWO** Carrimore Low-load 4-ton TRAILERS, with A Type Bedford Unit, 30ft. long, 22ft. in well. Unregistered, £395 each.

One Carrimore 12-ton LOW-LOAD TRAILER fitted to 5 Type Bedford Tractor, 23ft. in well, 35ft. overall. Unregistered, £685.

One 20-ton TOWED LOW-LOAD, 16-wheel, with ramps, £405.

One 20-ton Pole or Pontoon carrying TRAILER, adjustable centre, 900 x 20 tyres, Winch, £395.

Two ARTIC. RADAR VANS, air brakes, 900 x 20 tyres. Good condition, £75 each.

One 20-ton Towes La Cross MACHINERY TRAILER, 10 stud wheels, take big dozer, £375.

One Towes Dyson LOW-LOADER TRAILER, knock-out axle, 10/15-ton, £625.

Five Tasker ARTIC. 3.5-ton TRAILERS, £75 each. Two B.T.C. 6-ton 4-wheel DROPSIDE TRAILERS, 1100 x 20 tyres. As new, £185 each.

**SOUTHERN COUNTIES TRADING CO.,**  
Portsmouth Hill Road, Bedhampton. Tel.: Havant 1438.

**DIESEL ENGINES SERVICE EXCHANGE**  
For Smith Excavators, Ingersoll, C.P.T. and other Compressors, Foden and E.R.F. Dumpers and Tipplers. Muir-Hill and Chaseside Loaders and Dumpers. Field service available day and night.

**TILSLEY AND LOVATT, LTD.,**  
Engine and Plant Division, Stoke-on-Trent.

**J. JOHNSTON AND CO., LTD.,** for REPAIRS.  
OVERHAULS and FIELD SERVICE to all types of Contractors' Plant, Mobile Cranes, etc.—Phone Elgar 6905. RAPID SPARES AND SERVICE, Coronation Road, Park Royal, London, N.W.10.

**FOR SALE.** 32 1958 Diesel-engined Bedford Tippers, fitted with steel bodies. Price £10,000 the lot.—For further particulars, apply to DOWSETT ENGINEERING CONSTRUCTION, LTD., Dowsett House, Durham Road, Gateshead-on-Tyne, 9.

**GM 71 SERIES**  
GENUINE SPARES  
COMPREHENSIVE STOCKS

40% OFF LIST PRICE

**P.R. LOWE & Co.** 28 GROVE RD., SUTTON,  
SURREY Tel: Melville 1839

EXCHANGE ENGINES  
and QUICK and EFFICIENT  
SPARES SERVICE

FOR YOUR

**RUSTON**  
ENGINES

Consult

**STREATHAM ENGINEERING**  
CO. LTD.

Official Spares Stockists

**SPARES:**  
12/14 Wellfield Road,  
London, S.W.16.  
STR 3107

**SERVICE:**  
43/45 Mitcham Lane,  
London, S.W.16.  
STR 2014/5

**EVERYTHING  
MADE MOBILE**



**SITE  
OFFICES**  
22'  
Insulated  
Shells  
from £355



**DORMITORIES**  
14' 4-berth £410  
18' 5-berth £505  
22' 6-berth £595

SHOW UNITS — RESIDENTIALS

ALL UNITS FOR  
SALE OR HIRE

**LANDSMAN'S SERVICES**  
BUCKDEN • HUNTINGDON

**FOR IMMEDIATE DISPOSAL.** 20-ton WAGON TIPPLER, by Fraser and Chalmers, with 40 electric, control panel, tippler emergency and emergency stop switches, Pooley weigher for 34 tons in 1cwt. divisions, standard gauge rail, platform 19ft. 6in. overall length, main tippler motor 20-h.p. driven through reduction gear.—Reply: GEORGE COHEN SONS AND CO., LTD., Wood Lane, London, W.12. Telephone: Shepherds Bush 2020.

**FOR SALE.** One D8 2U 7000 Series ENGINE, in good condition; One Set of D8 TRACKS, SPS, new; One Caterpillar 25 WINCH, in good condition; also packet of D8 SPARES. Prices subject to negotiation.—Apply: J. P. MCGOWAN, Wakefield Road, Barnsley. Telephone 2059.

**PART-WORN** 1200 x 24 14-ply and 16-ply TRAILER Grip TYRES, 70-95% profile, £15 each. 1400 x 20 18-ply TRAILER Grip TYRES, from £25. **FELTHAM RUBBER CO., LTD.,** Green Man Lane, Feltham. Telephone: Feltham 4121.

**LAND-ROVER.** 1959, 88in. Regular Petrol, low mileage, £450. Choice of two.—ARLINGTON MOTOR CO., LTD., High Road, Ponders End, Middlesex. Telephone: HOWard 1266.

**WANTED.** REPLACEMENT PARTS for all Caterpillar Tractors and Contractors' Plant.  
Write Box E.F.513, "The Contract Journal."

**FOR SALE.** D4 TRACK ASSEMBLIES, American manufacture. Good discount off list price.  
Write Box E.3193, "The Contract Journal."

**WHITLOCK**  
DUMP  
TRAILERS  
3 1/2 ton

WHITLOCK BROS LTD • GREAT YELDHAM ESSEX • Tel. 305

**NAISMITH for  
EXCAVATOR SPARES**

COMPLETE EXCAVATOR TRACK

ASSEMBLIES IN STOCK FOR:

10RB—14in., 10RB—20in., 19RB—16in.

19RB—20in., 15BE—16in.

22RB—26in. Single Lug.

22RB—26in. Double Lug.

33RB—22in., 33RB—26in., 38RB—27in.

54RB—30in., 54RB—36in.

Smiths 21—24in., Smiths 5-20—16in.

Lima 34—22in.

TRACKS MANUFACTURED IN  
FINEST BRITISH STEEL TO RIGID  
SPECIFICATION AND TESTED  
THOROUGHLY UNDER ARDUOUS  
WORKING CONDITIONS

BRITAIN'S LARGEST  
MANUFACTURER OF  
EXCAVATOR PARTS

COMPETITIVE PRICES  
LISTS ON APPLICATION

**JACK NAISMITH AND CO., LTD.**  
Manufacturers and Distributors of  
EARTHMOVING EQUIPMENT SPARES

53-55 South Portland Street, Glasgow, G.5.  
Telephone: South 3467 (3 lines).  
Telegrams: "Jaynell" Glasgow G.5.

Works:  
61-71 Megan Street, Bridgeton, Glasgow, G.6.  
Telephone: Bridgeton 0774.

PLANT

**FOR LIMAS**

PLANT SALES LTD.,

25 CASTLEREAGH STREET, LONDON, W.1

Telephone: PADdington 2663-4



## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

**ROADS AND RUNWAYS OFFER FOR SALE:**

10RB EXCAVATOR, 4600 Series, with Backacter and Skimmer Equipment, £500.  
 22RB EXCAVATOR, 18000 Series, with F/S.  
 37RB EXCAVATOR, 7000 Series, with Dragline or F/S.  
 37RB EXCAVATOR, 8000 Series, with Dragline or F/S.  
 38RB EXCAVATOR, 12000 Series, with Dragline or F/S.  
 38RB EXCAVATOR, 19000 Series, with F/S.  
 54RB EXCAVATOR, 22000 Series, with Dragline and F/S.  
 54RB EXCAVATOR, 9000 Series, with Dragline.  
 54RB EXCAVATOR, 21000 Series, with F/S.  
 802 LIMA, with F/S and Dragline.  
 1201 LIMA, with Dragline and F/S.  
 1055 P. and H., with 100ft. Dragline.  
 NCK605, long and wide, with Dragline and F/S.  
 ROADS AND RUNWAYS.  
 26 Victoria Street, London, S.W.1. Tel.: Abbey 4905.

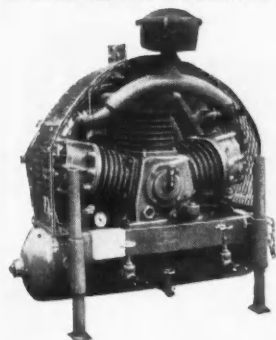
**MAIDEN POWER SCREWING MACHINE**, motorised 400-V 3-phase 50-cycle, up to 6in. pipes and 2in. bolts, cutting-off attachment, Sud Pump. This machine is new, £285.—NORMAN WALKER (MACHINERY), LTD., Anlaby, Hull.**FOR SALE**, 20-ton Herbert Morris Goliath Type POWERHEAD TRAVELLING CRANE, 400/440/3/50, 35ft. span, with 5-ton Auxiliary Hoist.—R. R. BRITTON, LTD., Memorial Road, Hanham, Bristol. Telephone: Bristol 67-4817.**FOR SALE**, International BTD6 CRAWLER, with Hydraulic Bulldozer, in good condition. Engine overhauled and tractor repainted, 1950. Terms provided if required.—Details from Box P.3203. "The Contract Journal."**PRACTICALLY NEW** Stothert and Pitt 14/10 Diesel CONCRETE MIXER, with Lister Freedom Engine. Any trial or inspection our works. £450.—NORMAN WALKER (MACHINERY), LTD., Anlaby, Hull.**URGENTLY REQUIRED**, SHEET STEEL PILING, any quantity and length considered. Write Box G.G.393, "The Contract Journal."**SHAWNEE POOLE DUMP TRUCKS FOR HIRE**

We operate the largest hire fleet of these machines in England; consult us for all your requirements.

Our hire fleet also includes D.8's, D.7's, D.4's with Scrapers, Drott Shovels, Excavators all sizes, Cat. 977 Traxcavators and 25 ton Low Loaders.

**PLANT HIRE OR CONTRACT**

**IRVING AINSWORTH (MORLEY) LTD.**  
 MORLEY · Nr. LEEDS  
 Phone: MORLEY 1800-1-2

**HYDOR TRACTOR MOUNTED AIR COMPRESSOR**

★ 145 cu. ft. FREE AIR @ 100 lb. P.S.I.

£450 ex works

✕ 132 cu. ft. FREE AIR @ 100 lb. P.S.I.

£395 ex works

★ (F.A.D. to B.S.S. 726 & 1571)

**More Air at less cost!**

For details contact the sole U.K. distributor

**ABELSON**

& CO. (Engineers) LTD.

SHELDON BIRMINGHAM 26

Phone: SHEldon 2424 (10 lines)

Also at LONDON & MANCHESTER

**FOR SALE**

International B6K3 Drott SHOVEL (standard equipment), Serial No. 1462, 1957, £1,500.  
 International B6K3 Drott SHOVEL (standard equipment), Serial No. 5243, 1957, £1,500.  
 International B6K3 Drott SHOVEL (standard equipment), Serial No. 5498, 1957, £1,950.  
 International B6K3 Drott SHOVEL (standard equipment), Serial No. 5802, 1957, £1,750.  
 International B6K3 Drott SHOVEL (standard equipment), Serial No. 7511, 1958, £1,750.  
 International B6K3 Drott SHOVEL (4-in-1), Serial No. 7178, 1958, £2,250.  
 Ford Sussex 6-wheel, Ford 4D Engine, new Winch, ideal for Drotts, etc., £350.  
 Ransomes-Rapier 4in. Centrifugal PUMP, reconditioned Perkins P4 Engine, £125.  
 Several Road Machines 14 cu. ft. WEIGHBATCHERS, very good condition, £50 each.  
 International TD9 ANGLEDROZER, Onions P.C.U. and 4yd. Scraper, £1,000.  
 All inquiries to W. BIRD PLANT HIRE, 770 Hanworth Road, Hounslow, Middlesex. Telephone: Feltham 2364.

**FOR SALE**

6½ cwt. Stothert and Pitt VIBRATORY ROLLER, petrol-driven, in good order.  
 3cwt. Greens Griffin Petrol-driven VIBRATORY ROLLER, hire fleet maintained.  
 WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

**FOR SALE**, ¾ cu. yd. Smith 21 EXCAVATOR, Gardner Diesel Engine, fitted with Backacter Equipment, new 1948, nice condition.—WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

**SURPLUS PLANT** (all types) and **MATERIALS** regularly PURCHASED in small or large parcels. Rapid inspections, prompt payment.—E. H. CHURCH AND CO. (EDMONTON), LTD., 68-70 Penge Road, South Norwood, S.E.25. Tel.: 57 Denham 3151-5.

**FOR SALE**, 22RB EXCAVATOR, new, ex works. Shortly available. Write Box P.3168, "The Contract Journal."

**WELDERS**

1958

300 amp. LINCOLN PORTABLE DIESEL SETS

**FOR HIRE**

Very Keen Rates—For Long Term Hires

**MOORE'S PLANT LIMITED**  
 105-129 MARKFIELD ROAD, N.15  
 Phone: TOTtenham 0401/8

**PUMPING WATER? you need a****MUD MARVEL**

BUY or HIRE from the maker W.G. **SEARCH LTD.** WHITEHALL RD LEEDS 12

**Sutcliffe****BELT CONVEYORS**

We invite enquiries for the hire of conveyors and ancillary equipment to handle bulk materials. Our organisation is at your disposal to provide technical advice. Attractive daily and weekly rates.

Please write or telephone:

**SUTCLIFFE PLANT HIRE LTD.**  
 14a BOND STREET, WAKEFIELD  
 Telephone: Wakefield 6031

**USED LOADING SHOVELS—IN STOCK NOW.**

**DIESEL/HYDRAULIC:**  
 1959 Bray 1½ yd., 4-wheel drive, power steering, cab, lights, £1,650.  
 1958 Chasaside 700, 1 cu. yd., power steering, cab, lights, £1,150.  
 1957 Bray BL430, 4-wheel drive, being overhauled, £1,450.  
 1956 Weatherill 2H, ¾ yd., cab, as seen—ex works, £475.  
 1952 Skyhl, ¾ yd., on Fordson Tractor, Perkins P6 Diesel, £115.

**DIESEL/CRAWLER:**  
 1957 International Drott BTD6, 1 cu. yd., cab, etc., £1,750.  
 1956 Bray BL25, 1½ yd., cab, under overhaul now, £1,575.

**DIESEL/WIRE ROPE:**  
 1955 Chasaside, H.O.C. Ford Diesel (electric starting), Hydraulic assisted Winch, cab, lights, extensively repaired and resprayed, £575.  
 1954 Chasaside H.O.C. Ford Diesel, cab, good working order, £375.  
 Wide range of new Bray Shovels in stock.

WILLIAM R. SELWOOD, LTD., Chandler's Ford, Hants. Phone 2981.

**FOR SALE**, Caterpillar D7, 7M 7000 Series, Le Tourneau Cable Blade. Undergoing complete overhaul. Would separate. Offers.—Write Box P.3117, "The Contract Journal."

**FOR SALE**, Priestman Wolf 1118 EXCAVATOR, No. A6685, 1953/54, in first-class condition, complete with Trencher Equipment, £1,550.—FRANK EDMUNDS, LTD., Watling Street Works, Brownhills, near Walsall. Tel.: Brownhills 2305/6.

**SLOGGETTS PLANT HIRE**—Large quantity of ROADFORMS, most sizes, now available for HIRE. Contact us for HIRE of all types of CONTRACTORS' PLANT.—2 Burtons Road, Hampton Hill, Middx. Tel.: Teddington Lock 1138/9.

**WANTED**, Offers for 1957 D9 (first used 1958). At present working in Wales. Can be inspected. Apply Wm. LEWIS (AGRICULTURAL HOUSE), LTD., Newport Road, Cardiff. Telephone: Cardiff 45651.

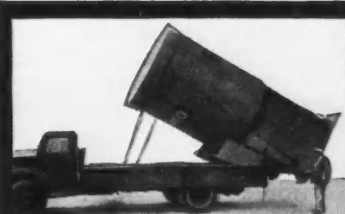
**FOR IMMEDIATE HIRE**

977 Traxcavator HT4 Traxcavator  
 831 John Deere Lanz Loading Shovel  
 Excavators D4 Dozers Mixers  
 Vibrating Rollers Road Rollers  
 Compressors Holsts

**PLANT HIRE & SALES, LTD.**

MILLBROOK POINT ROAD  
 SOUTHAMPTON

Telephone: Southampton 75371

**Less labour, low costs,**

with the 'DUMBO'—the most economical hopper for the small builder. All-steel silo that one man can off-load and erect in a matter of minutes. 10-20-30 tons (cement) capacities.

**DUMBO SELF-ERECTING HOPPER**

Photograph by permission Messrs. Wates Ltd.

**A.L.C. BEST FOR BULK**

For detailed information contact:  
**Amalgamated Limestone Corporation Ltd.**,  
 Bulk Handling, 15 Stanhope Gate, London, W.1.  
 Tel: Grosvenor 3611 (10 lines)  
**Abelson & Co. (Engineers) Ltd.**,  
 Sheldon, Birmingham, 26. Tel: Sheldon 2424 (10 lines)



## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

## PLANT FOR SALE.

Rapier 3-ton Diesel Electric Fully Mobile CRANE, powered by Perkins 4-cyl. Engine, £925.  
Broomwade 2-tool COMPRESSOR, 3-cyl. Lister Engine, steel wheels, £145.  
Nine Stothert and Pitt 10/7 MIXERS, with 5/1 Lister Diesel Engines. Extremely clean machines from £50 each.  
Five Stothert and Pitt 5/3½ MIXERS, Petrol Engines, £35 each.  
Seven Millers Force Lift Diaphragm WATER PUMPS, Bamford Petrol Engines, completely reconditioned. From £40 each.  
Ruston 6yd. SCRAPER, good tyres, £185.  
Muir-Hill Syd. DUMPER, Petrol, £75.  
THE FOLLOWING ENGINES FOR SALE:  
3-cyl. Lister, ex Compressor, £85.  
Lister 10/2, £40.  
Lister 5/1 £30.  
Meadows 4DC, £75.  
4LW Gardner, £50.  
7.7 A.E.C., £60.  
Big Four Dennis, £60.  
Perkins R6, £75.  
Twin McLaren-Benz, £45.

G. H. DUNNING,  
Ballards Yard, High St., Edgware, Tel.: Edgware 2572.  
Open week-ends.

## SOUTHERN BUILDERS AND CONTRACTORS (LONDON), LTD.

FOR HIRE:  
19RBs, 10RBs, D7s, D4s, with Dozers and Scrapers, Drott 4-in-1; also 1yd. Crawler Shovels; and all Plant at very competitive rates.

FOR SALE:  
D4 2T, with L.P.C. Hydraulic Dozer, in exceptionally good order.

Drott 4-in-1, in good condition.  
D7 CABLEDOZER, in first-class order.  
Selection of Modern TOWER CRANES.

Cranleigh, The Drive, Rickmansworth 2878 or 5235.

WANTED, 2½-ton ROAD ROLLER, State type of engine, age, condition and price.  
Write Box P.3146, "The Contract Journal."

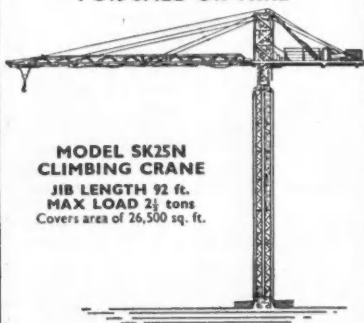
WANTED, Marion EXCAVATOR, ¾yd., any equipment considered. Reasonable condition.  
Write Box P.3162, "The Contract Journal."

DIESEL WELDING PLANTS  
FOR HIRE

JOHN DAVIES (LIVERPOOL) LTD.  
70 Regent Road, Liverpool 5.  
Telephone: NORTH 2405/2406.

Buildmaster<sup>regd.</sup>  
CRANES

## FOR SALE OR HIRE



MODEL SK25N  
CLIMBING CRANE  
JIB LENGTH 92 ft.  
MAX LOAD 2½ tons  
Covers area of 26,500 sq. ft.

Self-erecting Buildmaster Climbing Cranes are ideally suited to Contracts where site restrictions or the height of the building preclude the use of Buildmaster Tower Cranes.

BACKED BY REAL SERVICE  
BY

**ABELSON**

& CO. (ENGINEERS) LTD.

SHELDON · BIRMINGHAM 26

Phone: SHEldon 2424 (10 lines)

Grams: ABELSON, BIRMINGHAM

## SECOND-HAND EXCAVATORS FOR SALE.

J.C.B. Hydra-Digga/Counterweight, July, 1959, £1,625.  
J.C.B. Hydra-Digga/Counterweight, February, 1959, £1,575.  
J.C.B. Hydra-Digga/Counterweight, May, 1959, £1,595.  
J.C.B. Hydra-Digga/Counterweight, October, 1958, £1,373.  
J.C.B. Hydra-Digga/Loadall Shovel, March, 1959, £1,825.  
J.C.B. Hydra-Digga/Loadall Shovel, November, 1958, £1,625.  
Allen C16 Michigan ½yd. machine, Gardner 4LW Diesel, fitted 1½yd. Crowd Shovel, and with Trencher Equipment, £3,000.  
Choice of two BK50 ½yd. EXCAVATORS, 1956, £1,875.  
Choice of three Priestman Wolf ¾yd. Excavators, Dorman Diesel, 7000 Series machines, £1,225.

Full details from:  
H. WARREN, Contractors' Plant Suppliers,  
60 Northern Rd., Cosham, Portsmouth, Cosham 75288.

## ROLLERS FOR SALE.

Marshall 10-ton, ex Ministry, registered 1955, Perkins Diesel, Scarifier, £800.  
Fowler 10-ton Diesel, 1935, £500.  
Fowler 10-ton, 1929, Ford Diesel, £375.  
Aveling 4-ton 1938, Ruston Diesel, £300.  
Aveling 4-ton 1959, ex Ministry, petrol/paraffin, £450.  
Write Box P.3096, "The Contract Journal."

LET UNICORN WORK FOR YOU.—When buying or selling all Mining, Quarrying, Contractors' Plant, Loose Equipment, Ancillaries, etc., our Register will produce what you want.—Send your inquiries or details of equipment for disposal to UNICORN PLANT REGISTER, Box, Wilts. Tel.: Bath 88053.

FOR SALE or HIRE, Latest type AIR LOCKS, L.P. COMPRESSORS and MEDICAL LOCK for calson anking.—A. E. FARR (PLANT) LTD., Westbury, Wilts. Tel. 356.

SLOGGETTS PLANT HIRE.—Fleet of DIGGER-LOADERS for immediate HIRE.—2 Burtons Road, Hampton Hill, Middx. Tel.: Teddington Lock 1138/9.

LOW-LOADER WANTED. Up to 10-ton capacity. Must be reasonable price. Petrol would suit.  
Write Box P.3136, "The Contract Journal."

## IMMEDIATE DELIVERY

## Ex Stock

Sherman Trencher/Bray Shovel  
Liner Roughrider Dumpers  
Stothert & Pitt Vibrating Rollers  
Clarke Hydrovane Mobile Compressor  
Arden 3/2 Mixers  
Fisher Pipe Detectors  
GREENHAM EQUIPMENTS LTD.  
Clayton Road, Ruislip Road  
Greenford, Middlesex  
Ring Viking 3651

## LOW HIRE RATES

for

Drott 4-in-1.  
DINKUM DIGGER Majors, with Hydraulic Power Grab or Trenching Bucket.  
D2 and D4 BULLDOZERS.  
D4s and 4/5yd. SCRAPER.  
CALFDOZERS.  
TRACTORS, TRAILERS, DUMP TRUCKS.  
Mobile and Portable COMPRESSORS.  
DUMPERS, ¾yd. to 4yd.  
Chaseside LOADING SHOVELS.  
ROLLERS, Vibrating and Deadweight type, 6½cwt. to 10 tons.  
PUMPS.  
RAMMERS.  
MIXERS and WEIGHBATCHERS.  
Kango HAMMERS.  
4ft. CHAIN SAWS, power-driven.  
SCAFFOLDING, etc.

ARE OFFERED BY

**TRUNDLES LTD.**

HUNSDON,  
NEAR WARE, HERTS.

Telephone: Stanstead Abbots 71.

## J. J. JOHNSTON AND COMPANY, LTD.

## OFFER FOR HIRE:

Neals QM 4/6-ton capacity Mobile CRANES, 24/40ft. jibs, heavy-duty tyres.  
Jones KL44 Mobile CRANE, 30/40ft. jib, pneumatic.  
Rapier 5-, 6- and 7½-ton capacity MOBILE CRANES.  
Neals G 15cwt. capacity PORTABLE CRANE.  
Jules Weltz G15HVA TOWER CRANE.

Drott 1 cu. yd. Tractor SHOVELS.  
Rapier ¾ cu. yd. Crawler-mounted EXCAVATORS, all equipments.

DUMPERS, 15cwt. and 22½cwt. capacity.  
COMPRESSORS, 2- and 4-tool, portable and lorry-mounted.

CONCRETE MIXERS, 5/3½ to 14/10 cu. ft. capacity.  
SWING WEIGHBATCHERS, 14 cu. ft. Double Bucket.  
Rapier Centrifugal PUMPS, 2in. to 4in.

Wickham Diaphragm PUMPS, 3in. and 4in.  
Stothert and Pitt 6½cwt. Vibrating ROLLERS.  
271 Uxbridge Road, London, W.12.  
Tel.: Shepherds Bush 6941.

AVAILABLE for immediate HIRE.—D6, D4, D14 and TD18 TRACTORS, DOZERS, SCRAPERS, 19RB and 10RB EXCAVATORS, all equipments, DINKUM DIGGERS and Drott SHOVELS.—Apply TILBURY CONSTRUCTION CO., LTD., Ruscombe Works, Twyford, Berks. Tel.: Twyford 177.

IF YOU WANT TO PURCHASE or HIRE any CONTRACTORS' PLANT, please get in touch with METAL UNION (PLANT), LTD., 75 Victoria Street, London, S.W.1. Telephone: VICTORIA 4868/17429, 2177/8.

STEEL SHEET PILES and TRENCH SHEETS urgently wanted. All Sections bought; large and small quantities. Immediate payment.

DUDDLEY VALE, LTD.,  
3 Buckingham Place, London, S.W.1. VICTORIA 0252.

FOR SALE, New 3in. Mud Marvel Single and Twin Diaphragm PUMPS. Immediate delivery ex stock.

WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 659081 (10 lines).

FOR HIRE IN THE MIDLANDS: 10-ton Lorry-mounted CRANES, jibs to 75ft.—J. NELSON AND CO., LTD., Lugtrout Lane, Solihull, Warwickshire. Telephone: Sheldon 4005.

WANTED, Petrol-driven VIBRATOR.  
Write Box P. 3186, "The Contract Journal."

## MECHANICAL ROAD SWEEPERS

available

## FOR HIRE

on weekly or monthly terms  
or

## FOR SALE

WALKERS MECHANICAL CLEANSING  
LIMITED

ROCKINGHAM ROAD, MARKET HARBOROUGH  
TEL: 3168

HOSE  
in a  
HURRY



If you need hose—  
and quickly—see if  
we have it. The demand for  
MacLellan hose is tremendous,  
but our Scottish factory keeps  
us well supplied. See if we have  
what you want. We're big  
enough to produce magnificent  
quality in bulk, yet compact  
enough to give individual  
attention.

George MacLellan & Co. Ltd.

London: Burstons Road, Putney,  
S.W.15. Tel: Putney 5678.

Belfast: North Queen Street.  
Tel: Belfast 22822.

Factory: Shuna Street, Glasgow.  
N.W. Tel: MARYhill 5111/9.

**MOORE'S TRACTOR SHOVEL HIRE**  
Drott. 1 cu. yd., New Deutz 1½ cu. yd.

Tel:  
TOTtenham  
0401  
(10 lines)

## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

## ROADS AND RUNWAYS OFFER FOR SALE:

**DERRICKS:**  
10-ton Butters, Steam, 120ft. Jib.  
7-ton Butters, Steam, 120ft. Jib.  
7-ton Butters, Electric.  
5-ton Butters, Electric.  
5-ton Butters, Hand, 45ft. Jib.

**TOWER CRANES:**  
7-ton Butters Mono Tower, Electric, 140ft. Tower, 12ft. 6in. Jib.  
15-ton Butters Mono Tower, Electric, 120ft. Tower, 12ft. 6in. Jib.  
Jules Weltz G20HV.

**MOBILE CRANES:**  
Neals 4/6-ton Crawler, 1951, 45ft. Jib.  
Neals 2-ton, pneumatics.  
Jones KL44 Crawler, 1953.  
Jones KL66, pneumatics, 1957, 60ft. Jib.  
Coles 12½-ton Mobile, on pneumatics, 80ft. Jib.

**LORRY-MOUNTED:**  
10-ton Lorain MC3, 70ft. Jib and Fly Jib.  
10-ton Coles (Thornycroft), 75ft. Jib.  
5-ton Coles Mk. 7, Series 7, with 24ft. Cantilever Jib.

**ROADS AND RUNWAYS.**  
26 Victoria Street, London, S.W.1. Tel.: Abbey 4905.

## PLANT FOR HIRE.

In Warwickshire and adjoining counties. Delivered and collected with our Low-loader to your site.

One Greens 10-ton ROLLER, with Scarifier.  
One Greens 4-ton ROLLER.

Two Priestman Wolf EXCAVATORS, with all Equipment.

One Priestman Cub EXCAVATOR.  
Two Allen 12-21 TRENCHERS.

Two Allen 12-18 TRENCHERS.  
Several C.P.T. 2 and 3-tool AIR COMPRESSORS, complete with hammers.

One 8in. Sykes Self-priming Diesel PUMP, complete with pipes and bends, and capable of pumping 90,000 gallons per hour.

One 6in. Ditto, capable of pumping 60,000 gallons per hour.

Several 3in. Wickham Diaphragm PUMPS and pipes.

Apply DUNCHURCH PLANT HIRE, LTD., London Road, Dunchurch, nr. Rugby. Dunchurch 379.

**DELMAG Diesel PILE HAMMERS for HIRE . . .**

Our fleet of these fine machines is the biggest in Britain. Models D5, D12 and D22 available with rope suspended leaders, and leg guides, suitable for driving any section of pile.

**DUDLEY VALE, LTD.,**

3 Buckingham Place, London, S.W.1. Victoria 0252.

**A. AND S. SERVICES, 88 Cherrydown Ave., London, E.4 (SIL 3028).**—For good second-hand PLANT.

Plant inspections carried out. Personal service at the right prices. Send us details of your surplus plant.

**FOR SALE, Muir-Hill Model 4WL TRACTOR SHOVEL, 1958.**—B.G. PLANT (SALES AGENCY), LTD., Watlington, Oxon. Watlington 44.

**EXCELLENT Priestman 12/10 Single Chain GRAB.** Been little used. £115.—NORMAN WALKER (MACHINERY) LTD., Anlaby, Hull.

## FOR SALE.

2-ton Neal N CRANE, 20ft. Jib, reconditioned engine.

**TRENCH SHEETS, 12ft.**

**KL44 MOBILE CRANE, on tracks, 24ft. Jib, Diesel Engine.**

Ruston Diesel LOCO., 2ft. gauge, 25/30-h.p.

1½ cu. yd. and 1 cu. yd. Johnson Diesel DUMPERS.

D7 Caterpillar TRACTOR, Model 4T, reconditioned.

KL44 MOBILE CRANE, 30/40ft. Jib, pneumatics, Ruston Diesel.

Two No. 16 Spencer-Hopwood BOILERS, fully insured, 120lb.

No. 7 McKiernan-Terry PILING HAMMER, with leg guides.

Larssen and Appleby-Frodingham STEEL PILES, Nos. 1, 2 and 3 Sections.

2-ton Neal NM MOBILE CRANE, 30ft. Jib, Ruston Diesel Engine, pneumatics.

983 McKiernan-Terry PILING HAMMER, with leg guides.

**DUDLEY VALE, LTD.,**

3 Buckingham Place, London, S.W.1. Victoria 0252.

**THE UNUSUAL PLANT SERVICE.**

We claim to have the most comprehensive PLANT HIRE SERVICE in this country, and you can obtain from us almost everything the builder requires, from a drain plug to an excavator. Our lorries deliver in the London area every day. Note the telephone No.

Brentwood 2116.—**SYMES (PLANT), LTD.,** Ongar Road, Brentwood, Essex.

**ROAD ROLLERS.**—Aveling-Barford GD1, 1948,

with Ruston 3-cyl. Diesel, Price 2-time Scarifier.

Awning, Sprayers, Water-ballast Rolls. Ditto MD8,

with Lister 3-cyl. Diesel, Price 2-time Scarifier.

Awning, Sprayers. Ditto 3-ton, with Ruston 2VSOR Diesel and Sprayers. Fowler 8/10-ton Diesel, with Scarifier, Awning and Sprayers.—A. M. COLE, Eastgate, Sleaford, Lincs. Tel. 463.

**FOR SALE.**

120 cu. yd. Winger CENTRAL MIXING PLANT, with 3 cu. yd. Mixer, complete installation.

Second-hand TRUCK MIXERS, mounted on Foden, Dodge and Leyland chassis.

**WILLIAM G. SEARCH, LTD.,** Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

**CHASESIDE 700 LOADING SHOVEL, with powered steering.** Repainted tractor fitted with operator's all-weather cab, £1,150. New Feb., 1958, and in good order.—Particulars from Box P.3204, "The Contract Journal."

**FOR SALE, Caterpillar 955 TRAXCAVATOR, Model 12A, Series E, with 1½ cu. yd. Side Dump Bucket, new 1959. Price £4,950.**—Write Box P.3095, "The Contract Journal."

**PARKER 4ft. 6in. Overall Portable MORTAR MILL, Lister Diesel Engine, in excellent condition throughout, £265.**—NORMAN WALKER (MACHINERY), LTD., Anlaby, Hull.

**FOR SALE, Air Pumps COMPRESSOR, 2-Tool, fully equipped with Breakers, etc., £650.**

Phone: Boxmoor 5384 or Garston 3518.

## TOKEN OFFER FOR SALE.

10RB ½ cu. yd. Diesel EXCAVATOR, Serial No. 17096, base machine, £1,275; or with choice of Face Shovel, Skimmer or Backacter Equipments, £1,450.

International BT06 (1957) TRACTOR, Serial No. 5355, fitted with International Hydraulically controlled Front Pump-operated Bulgrader, and Onions Model 12 P.C.U. (for 4 cu. yd. Scraper), £1,550.

Two 3 cu. yd. Muir-Hill 10B Diesel DUMPERS, powered by Fordson Diesel Engines, Serials 10BD/4543/D and 10BD/4548/D, £450 each.

Thwaites 30cwt. Four-wheeled Diesel DUMPER, Petter Diesel Engine, Serial No. 1371, new May, 1955, £195.

Two 3in. Millars O/D PUMPS, Serials 19569 and 25327, £20 and £30.

10/12 Bedford SERVICE VAN, year 1953, £145.

LAND-ROVER, year 1951, £125.

Winger 3-ton Lodeite TRAILER, £100.

Apply: **TOKEN CONSTRUCTION CO., LTD.,** Station Road, Thatcham, Newbury, Berks. Tel.: Thatcham 3243 and 3370.

**MODERN PLANT FOR HIRE, with experienced operators and backed by an efficient service organisation.**

EXCAVATORS, ½, ¾ and 1½ cu. yd.

J.C.B. HYDRA-DIGGAS.

DUMPERS, ½ to 4 cu. yd., Diesel.

ROAD ROLLERS, 1 to 12 tons.

COMPRESSORS—Mobile and Portable, with every type of equipment.

CHASESIDE SHOVELS, ½ to 1 cu. yd.

ANGLEDZERS—International and Fowler.

CONCRETE MIXERS, 5/3½ to 14/10 cu. ft.

PUMPS, 1½in. to 6in., Diesel.

Earth Rammers, Holsts, Cranes, Mortar Pens, Kange Hammers, Roadforms, Traffic Lights, Scaffolding, and most types of Contractors' Plant.

**HUBERT C. LEACH, LTD.,**

131 High Street, Chesham, Herts. Tel.: Waltham Cross 25161 (5 lines).

**SURPLUS CONVEYOR BELTS.** New, unused and second-hand. Most widths up to 36in. in stock for immediate delivery. Second-hand Belts supplied on sale or return basis.

**G. E. SIMM (MACHINERY), LTD.,**

27 Broomgrove Road (Tel. 54435), Glasgow Area; Luggie Bank Road, Kirkintilloch (Tel. 2468), London; 33 St. George's Drive (Tel. 8772), South Wales; 1.F.5 Kingsway Trading Estate, Bridgend (Tel. 1567).

**WANTED, quantity JUBILEE TRACK, LOOSE RAILS, WAGONS, CRANE SKIPS, ROADFORMS, 2-ton Hand DERRICK CRANE.**—Full particulars, prices, write Box P.3116, "The Contract Journal."

**URGENTLY REQUIRED, SHEET STEEL PILING, in any length and section considered.**—Write Box C.C.386, "The Contract Journal."

**WANTED, a Drott BT06 SHOVEL.** Machine suitable for rebuilding would suit. — Write Box P.2879, "The Contract Journal."

**KINGSTON PLANT**  
HANWORTH · MIDDX.  
FOR **DUMPERS AND**  
ALL PLANT HIRE  
**FELTHAM 4084**

**M P S** for  
**CONTRACTORS PLANT**

## OUTSTANDING OFFERS

## EX STOCK DELIVERIES

New JCB 4L Hydraulic LOADER, 2-ton lift £1,695  
New JCB 4 Hydraulic EXCAVATOR/LOADER £2,525  
New BLAW KNOX 10/7 C.D. MIXER, £756  
Used 1960 JCB HYDRA-DIGGA/LOADALL £1,995  
Used JCB EXCAVATOR, with Counterweights £450  
Used WINGER 10/7 MIXER, Hydraulic Skip £450

Sole West Midland Distributors for JCB Excavators, Joy-Sullivan Compressors, and Blaw Knox and Allam Concrete Equipment.

YOU WILL GET A GOOD DEAL FROM M.P.S.

**MODERN PLANT**  
**SALES LTD**  
WOLVERHAMPTON ROAD  
OLDBURY · BIRMINGHAM  
Tel: Broadwell 2571

**BROWNS**  
for  
**MASSEY-FERGUSON**  
**Tractor-Digger-Shovel**



**Most versatile!**  
**Lowest price!**  
**Most manoeuvrable!**  
**Highest working cycle!**

For details and prompt delivery contact:  
**Browns Industrial Equipment Ltd.**  
**LEIGHTON BUZZARD, BEDS.**  
Phone 2062 (4 lines)

**NEW COLES**  
**10-ton REGIN**  
**diesel - electric**  
**Crane**

40 ft. cantilever jib, mounted  
on a FODEN double drive  
8-wheel chassis and cab.

**£7,750 complete**

**HARRY DANDO**  
WEST END GARAGE,  
Chipping Sodbury, BRISTOL  
Chipping Sodbury 2277 (4 lines)

hire it from...  
**ABELSON**

Tel: SHEldon 2424

**MOORE'S PILING**  
**HAMMER HIRE**  
New Delmag Diesel D5, D12, D22.

Tel:  
**TOTTENHAM**  
**0401**  
(10 lines)

## ★ Further Classified Plant Advertisements on pages 1357-1364

### PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

#### NEAGRON (CONSTRUCTION), LTD.

OFFER FOR HIRE:  
NEALS QM 4/6-ton capacity MOBILE CRANES, 11lbs from 24/60ft., heavy duty pneumatics. With Grabs if required.

NEALS 2-ton MOBILE CRANES, mounted on pneumatic tyres or crawler tracks.

NEALS 15cwt. MOBILE CRANES, 20ft. Lattice Jibs. IONES KL44 3/4-ton capacity CRAWLER-MOUNTED CRANES, 24ft. Channel to 40ft. Lattice Jibs, with 10ft. Jury Jibs.

COLES and LORAIN 5/25-ton capacity LORRY-MOUNTED CRANES.

LIMA 802 30-ton capacity CRAWLER-MOUNTED CRANE, fitted 80/100ft. Jib, with Back Hitch Gantry. First-class condition.

CONCRETE MIXERS, 5/3 1/2, 7/5, 10/7, 14/10 and 21/14 cu. ft. capacity. Diesel-powered, high or standard discharge, with Integral Weighgear and Hand Scrapers.

DUMPERS, Diesel, 1 1/2/4 1/2 cu. yd. capacity.

COMPRESSORS, Lorry-mounted and Portable, with full equipments.

ANT QUEEN Diesel MOBILE HOISTS, 7/10cwt. capacity, rail as required.

EXCAVATORS, 10, 19, 24, 33 RBs and N.C.K. 304 with all equipments.

40ft. HANGING LEADERS for 19RB or 22RB Excavators, complete with all necessary fittings.

DROTT and ALLIS-CHALMERS HD5G TRACTO-SHOVELS.

CATERPILLAR and BRISTOL TRACTORS, all sizes. J.C.B. and DINKUM DIGGERS.

ROLLERS, 63cwt., vibrating, to 10-ton capacity.

SHUTTERING, SCAFFOLDING, PROPS, ROAD-FORMS, etc.

MONO-RAIL and C.P.O.A.C. CONCRETE PLACER EQUIPMENT.

BAR BENDERS and CROPPERS, Diesel and Electric drive.

CHINOOK HEATERS, all models available.

FURTHER DETAILS:  
Abbey House, Victoria Street, London, S.W.1.  
Telephone: ABBey 5152 (4 lines).

ONE first-class 25-h.p. Hunslet Diesel LOCOMOTIVE, 24in. gauge, totally enclosed Cab, lights, etc. Completely reconditioned. In stock at Sheffield.

G. E. SIMM (MACHINERY), LTD., 27 Broomgrove Road, Sheffield, 10. Tel. 64436.

FERGUSON 1958 Shawnee-Scout Diesel EXCAVATOR, with 24in. and 36in. Digging Buckets. Enclosed cab. This machine has not done three months' work. £950. — NORMAN WALKER (MACHINERY), LTD., Anlaby, Hull.

FOR IMMEDIATE DISPOSAL.

Quantity of 20lb. and 25lb. RAIL and 2ft. gauge TRACK, with 24in. and 36in. Digging Buckets. Enclosed cab. This machine has not done three months' work. £950. — NORMAN WALKER (MACHINERY), LTD., Anlaby, Hull.

FOR SALE, Onions 4yd. SCRAPER, BM4/379.

KINGS NORTON EXCAVATORS, LTD., Dornston Trading Estate, Burton Road, Upper Gornal, near Dudley. Tel.: Sedgley 2513.

WANTED, 19RB EXCAVATOR, 9000 to 13000 Series. Any equipment. Urgent.

Write Box P.3160, "The Contract Journal."

FOR HIRE IN SOUTHEAST AND AREA

5-ton MOBILE CRANE, 40ft. Jib.

LONG and SHORT HIRE and REHIRE.

CHURCH ROAD MOTORS (Southeast-on-Sea), LTD.

(Plant Department).

Church Road, Hadeligh, Essex.

Telephone 57271 (10 lines).

## HERGARTH



Main York C.B., E. and N.R. Yorkshire, and Lincs.

Backed by...

**SUPER LIG SERVICE**

New J.C.B. 4 Hydraulic EXCAVATOR £2,525  
New HOWARD SUPER TRENCHER, ex stock £2,575  
PIPELAYER for same £40  
New SHAWNEE POOLE 7 cu. yd. 9.9-ton DUMPER £2,100  
J.C.B. Hydraulic EXCAVATOR and Loading Shovel £1,200  
J.C.B. Hydraulic EXCAVATOR and Loading Shovel £1,200  
1959 HOWARD SUPER TRENCHER, as new £1,850  
ASTELL WATTS TRENCHER on Ferguson Diesel £2,575  
HOWARD 3ft. TRENCHER, with Fordson V.O. £250  
DINKUM DIGGER £650  
All Reconditioned Machines sold under guarantee.

PART EXCHANGE AND HIRE PURCHASE.

Main Distributors for SHAWNEE LIG: York C.B. and N.R. Yorks.

**HERGARTH of YORK**

Tel.: York 55181/2 (after hours—York 59184)

#### VALES PLANT REGISTER, LTD.

OFFER FOR IMMEDIATE SALE:

EXCAVATORS:

10RB, 18000/20000 Series, any one equipment, very good condition. From £1,950.

10RB, 13400 Series, Skimmer and Backacter, £1,050.

PRIESTMAN Wolf 11B, Dragline or F/S, 1956, good working order, £1,500.

19RB, 17000 Series, Dragline or F/S, good working order, £2,650.

19RB, 19000 Series, Dragline, good working order, £3,800. Available shortly.

SMITH 21, 17600 Series, C/S or Skimmer and Backacter, 1950/51, £2,500 each.

22RB, 15000 Series, F/S, very good condition, £2,750.

NCK304, F/S Equipment, 1955, very good condition, £3,250.

24RB, 15000 and 20000 Series, F/S Equipment, good working order. Price on application.

33RB, 4000 Series, Dragline, good working order, £3,250.

37RB, 3000/9000 Series, Dragline. Various.

38RB, 19000 Series, F/S, very good condition, £10,500.

43RB, 19300 Series, Dragline and F/S, new August, 1954, very good condition, £8,950.

LIMA 1201, Dragline or Crane, 5000 and 32000 Series. Price on application.

54RB, 17000 Series, Dragline or F/S, excellent condition. Price on application.

Further details: 14 Lower Grosvenor Place, London, S.W.1. VICTORIA 7531, 3501, 8080, 9886 (15 lines).

FOR HIRE.—Available immediately. 1201 LIMA, fitted with genuine American 100ft. Crane Boom, Back Haul Gear, Bridle, etc., and in first-class condition. — Write Box P.3202, "The Contract Journal."

FOR IMMEDIATE SALE, Dinkum REAR DIGGER, mounted on Fordson Major Tractor, fitted Whitlock Front Shovel, Outfit new July, 1958, and in excellent order, £700. Examining Manchester district any time.—Write Box P.3202, "The Contract Journal."

BRAYLOADER, Type 430, with 1 1/2 cu. yd. Bucket and 4-wheel drive, 18 months old; International TD9, with 9K3 Drott Shovel, 18 months old.—Full details from: ABELSON AND CO. (ENGINEERS), LTD., Coventry Road, Sheldon, Birmingham, SHE. 2424.

FOR HIRE in Leicestershire and adjacent counties: Coles and Hydrocon MOBILE CRANES and J.C.B. EXCAVATORS.—CREESE PLANT HIRE, Thurmarston, Leicester. Syston 2932/3.

TOWER CRANE for HIRE.—Liebherr F25. Maximum height 133ft., radius 75ft., load 2 tons. JERRAM, Sandford Works, E.G. GRA 4617/8.

WANTED, CRANE, Coles/Thornycroft Mk. 7, Series 7, Rope Derricking.

Write Box P.3130, "The Contract Journal."

WANTED, 20-ton Lorry-mounted CRANE, Byers, Mack or Lorain, or similar.

Write Box P.3132, "The Contract Journal."

#### FOR SALE

Lima 2400 EXCAVATORS, with Dragline and Forward Shovel. Choice of four.

Marion 1111 EXCAVATORS. Choice of two.

Lima 1201 EXCAVATORS. Choice of two.

Ruston 100B EXCAVATOR, Diesel/Electric.

All machines in excellent condition, may be seen working, and are open to any inspection and trial.

Immediate delivery.

Call, write or phone:

A.R.C. MOTOR CO., LTD.,

Redhill Works, Arnold, Nottingham. Tel. 26-3331/5.

#### DIAPHRAGM PUMP

One New Dixon 3in. Diaphragm Pump, Diesel driven, on own carriage. 5,000/7,000 g.p.h. Details from:

DOWNING (BARNLEY), LTD.,

Doncaster Road, Barnsley, Yorkshire.

Tel.: Barnsley 3603/4/5.

#### ROAD ROLLERS

FOR HIRE OR SALE

10 CWTs. to 10 TONS

with or without drivers

HALTRAC LIMITED

Bourne Works, Weimar Steet, S.W.15

PUTney 4185

#### EQUIPMENT SALES & HIRE CO. LTD.

#### FOR HIRE TRAXCAVATORS 955

CAT. D.7's Dozer or Scraper

19 R.B.'s—any equipment

HOUNSLOW 8831

#### R. CRIPPS AND CO. LTD. have the following

plant for IMMEDIATE SALE:—

International BTD6 CRAWLER, fitted with Drott 6ft Shovel Equipment and 4-in-1 Bucket with teeth.

50-h.p. Diesel Engine. Fully reconditioned, repainted and guaranteed. Operator's cab available if required, £2,650.

BTD6 CRAWLER TRACTOR, fitted with Hydraulic Bulldozer Equipment. New Sept. 1958, and in excellent order throughout. Well maintained machine with fully adjusted type blade, £850.

International TD14 Drott Hydraulic SHOVEL, with 2 1/2 cu. yd. Heavy Duty Bucket. This machine has been extensively overhauled. Available for inspection. Nottingham, £3,750.

International TD24 CRAWLER TRACTOR, fitted with Cable-operated Heavy Duty Bulldozer Equipment, and Onions Model 18 Cable Control Unit. Excellent example of this powerful model, having been fully overhauled. Guaranteed tractor for £4,750.

Weatherill SHOVEL, Series 12H, powered by Fordson Major. New Jan. 1960, and in excellent condition. 1400 x 24 and 29 x 8 nylon tyre equipment, £1,295.

The above machines can be examined at your convenience.

For further details, please contact:

Nottingham—Tel.: 71161.

Manchester—Tel.: Trafford Park 1658.

Shildon (Co. Durham)—Tel. 261.

SLOGGETTS PLANT HIRE. — For COMPRESSORS, TRACTORS, DINKUM DIGGERS, DOZERS, CALZ. DOZERS, CRANES, ROAD ROLLERS, FLOOR CENTRES, ACROW PROPS, PAINT, SPRAYERS, MOBILE SITE OFFICES, PUMPS, HOISTS, ROADFORMS, Sin. to 10in. Light and Heavy Section. All CONTRACTORS' PLANT, long or short HIRE. — 2 Burton Road, Hampton Hill, Middle. Tel.: Teddington Lock 1138/9.

WELDING PLANT FOR HIRE.

Also:

COMPRESSORS.

MOBILE CRANES.

LIGHTING PLANTS.

RYE-ARC, LTD., Plant Hire Division.

Silvertown Works, North Woolwich Road, London, E16.

Phone: Beart Dock 4381 (10 lines).

FIVE TRUCK-MOUNTED and MOBILE COM-

PRESSORS for SALE.—C.P.T. Ingersoll-Rand, Pescara-Muntz, Holman, Arpic. Lump sum price at £1,875.—C.P.T. LTD., Crown Works, Southbury Road, Enfield, Middlesex. Telephone: HOWARD 4994.

TWO Muir-Hill 3yd. DUMPERS, Diesel Engine, 1953, inspection invited, £350 each.

3yd. Wolf EXCAVATOR, any equipment, in good order, £1,150.—E.K. PLANT, LTD., Folkestone S1651.

PARKER Kubit No. 0 BREAKER WANTED. In really good order.

Write Box P.3148, "The Contract Journal."

WANTED, 22RB EXCAVATOR, 17000 to 20000 Series. Any equipment. Urgent.

Write Box P.3161, "The Contract Journal."

#### EXCAVATORS FOR SALE

(Abridged List)

PRIESTMAN MACHINES:

Cub Mk. V, new 1960, 26ft. Dragline. Excellent, £2,500.

Wolf 3A, new 1953, Skimmer and Backacter, £1,150.

Panther, new 1953, with 40ft. Dragline and 21-17 Grab, Dorman Diesel, £2,200.

RAPIER MACHINES:

414, new 1956, 4-in-1 equipment, £2,100.

424, new 1954, with any one equipment, Perkins 56. Completely reconditioned, £2,750.

10RBs, new 1951/55, with any one equipment, from £1,350.

10RB, with Drag and Grab, new 1955/56, £1,900.

19RB, new 1948, Shovel Equipment. Very good, £1,850.

24RB, new 1946, Shovel Equipment, £2,350.

33RB, new 1951, 50ft. Drag and Face Shovel. Recent overhaul, £6,200.

37RB, new 1946, with Drag. Fair condition, £3,750.

Shovel Equipment, also available.

54RB, new 1944, with 60/70ft. Drag, etc., £7,500.

54RB, new 1951, 2 1/2yd. Shovel Equipment, Pannan Diesel, £7,000.

54RB, new 1957/58, Shovel and Drag, Ruston Pannan GRPH2, wide tracks. Good, £18,500.

SMITH MACHINES:

Super 10, new 1953, one equipment, £1,100.

Super 10, new 1952/53, Skimmer and Backacter, £1,200.

OTHER MAKES:

Lima 2400, new 1955, with 6yd. Drag, Caterpillar Diesel, £26,000.

3yd. N.C.K. 304, new 1955, 60ft. Drag or Shovel, A.E.C. Diesel, £3,500.

1 1/2yd. N.C.K. 605, new 1955, 80ft. Drag, Dorman 6KD Diesel, Good, £12,500.

ALAN R. DAVIES, LTD.,

20 Whiteladies Road, Bristol, 8.

Telephone 38418.

#### NEAL'S (PLANT HIRE) LTD

#### SERVE THE SOUTH

Immediately available for hire on the South Coast:—

**Excavators, Tracto-Shovels,  
Mobile Compressors,  
Fergusons, Mobile Cranes,  
10 BD 3 c.y. Diesel Dumpers,  
Petrol and Diesel Rollers,  
Concrete Mixers, etc., etc.**

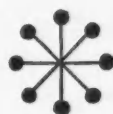
All enquiries promptly dealt with

Phone - - Chichester 3771-81



**NEW**

**2D2**



LIGHTWEIGHT

HIGHER  
OUTPUT

LOWER RUNNING  
COSTS



**2 x 2 inch DIESEL Powered self-priming pump  
to handle water containing up to 25% solids**

Besides 2D2, the GOODENOUGH range includes  
self-priming Centrifugal Pumps from 1 inch to  
8 inch and hand and power operated diaphragm  
pumps up to 4 inch size.

**GOODENOUGH PUMPS LTD**

112 JERMYN STREET · LONDON · S.W.1 · Telephone TRAFALGAR 2663/4/5

AGENTS FOR SCOTLAND: HIREPLANT LTD., 2420 LONDON ROAD, CARMYLE, GLASGOW, E.2

AGENTS FOR WALES: O. L. DAVIES LTD., BAGLAN PLANT DEPOT, PORT TALBOT, GLAMORGAN

Midlands Representatives: Messrs. W. J. S. Blunt and Son, 74 Watery Lane, Redditch, Worcs. Tel: Redditch 1175



N.C.B. Bestwood (East Midlands Division, No. 6 area) originally ordered 8 Fowler 'Challenger 33' tractors in April 1959. They have just taken another 4.

## N. C. B. make it the

*Moving spoil at Hucknall Colliery  
(East Midlands Division, No. 6 Area)*



dozen!

# FURTHER PROOF OF *Challenger* 33 SUPREMACY!

Send for brochure—then see what 'Challenger 33' can do on demonstration!

*Sole distributors in the United Kingdom*

**THOS. W. WARD LTD**

ALBION WORKS • SHEFFIELD • PHONE: 26311

London Office: Brettenham House, W.C.2. Phone: TEM 1515

SALES & SERVICE DEPOTS:

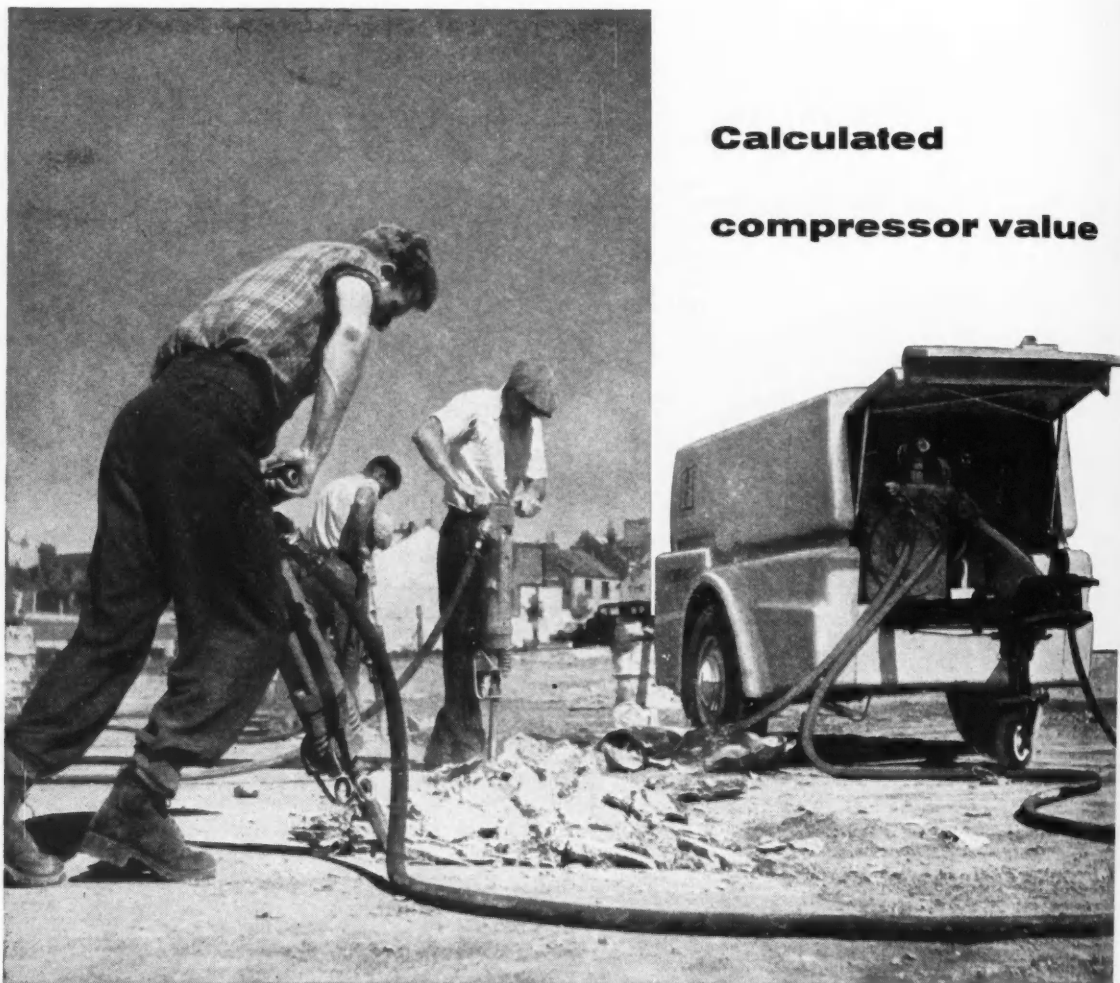
Sheffield 26311

Glasgow, Scotstoun 8083

Briton Ferry 3166

Grays, Thurrock 4764 & 4806

Coventry, Bedworth 3011



## Calculated compressor value

### The Rotair 150 portable rotary screw compressor

Compressed air at minimum cost is produced by the new Holman Rotair 150 portable rotary screw compressor.

Pulsation-free delivery of 150 cu.ft. of air per minute at 100 p.s.i. in one stage ensures high efficiency. Because of its capacity, initial cost and particularly low upkeep, the price of compressed air per cubic foot delivered is lower than for competitive machines. This calculated compressor value adds up to the finest 3-tool machine on the market.

Wear is negligible because positive clearances prevent metal-to-metal contact between the rotors and between the rotors and their casing. Literally no maintenance is necessary.

Rotair portable rotary screw compressors are available with outputs up to 600 c.f.m.


Write for publication 19/SP

Air... compressed air... **power...** **Holman**

HM50

Holman Bros. Limited, Camborne, England; Camborne 2275 and at 44 Brook Street, London W.1; HYDe Park 9444  
Also in Birmingham \* Cardiff \* Glasgow \* Peterborough \* Sheffield. Australia \* Canada \* East Africa \* France  
India \* South Africa \* Spain \* U.S.A. \* West Africa. With Agents and Representatives throughout the world.





For  
contractors'  
plant

## **BANK ON BOWMAKER**

**and get credit for it**

Contractors' plant — and industrial equipment — can be bought on favourable credit terms through Bowmaker. Your local Bowmaker Branch Manager (under Bowmaker in the telephone book) will give you full details.

*Motor vehicles, farming equipment, school fees, central heating, a boat . . . Bowmaker credit plans solve a lot of immediate problems for a lot of people.*



### **THE BOWMAKER GROUP**

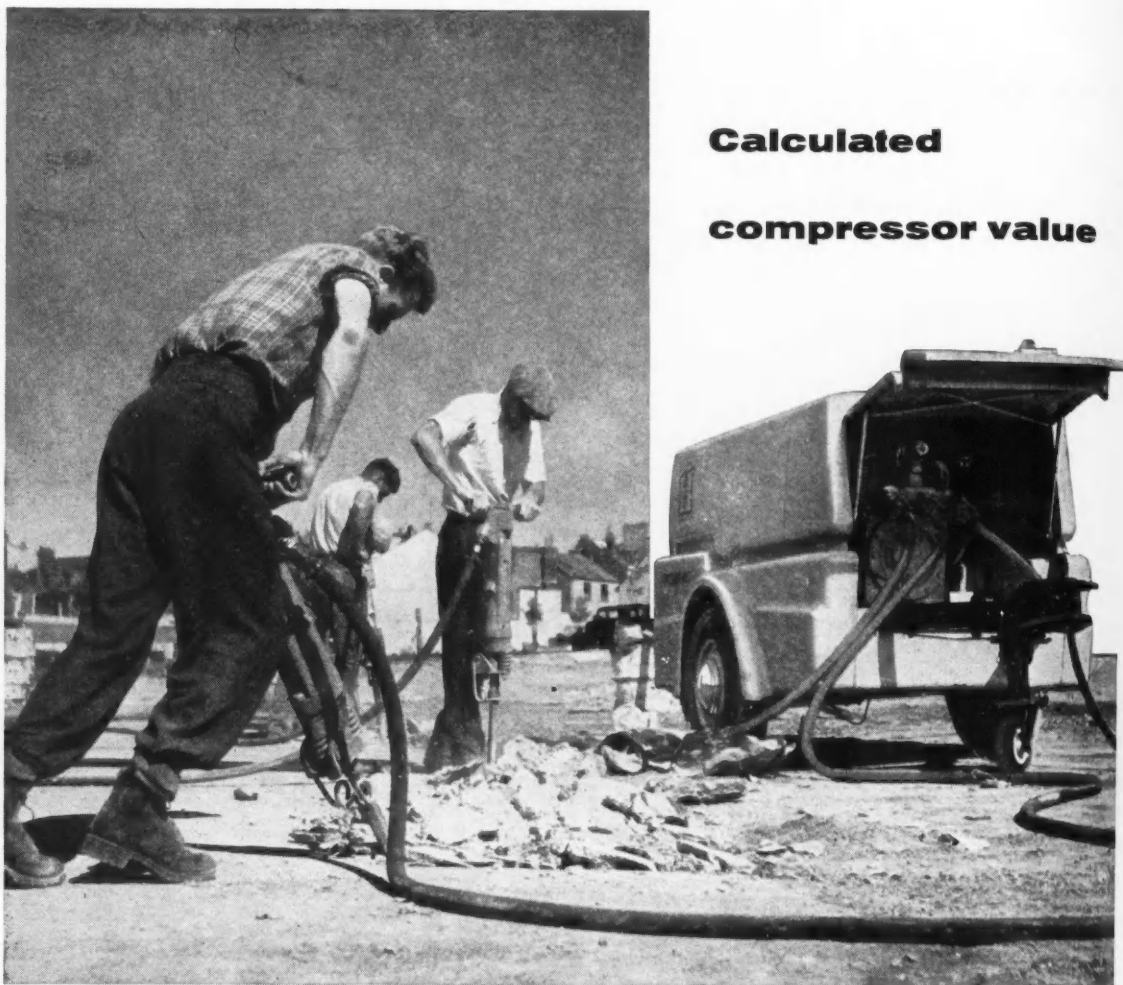
HEAD OFFICE: BOWMAKER HOUSE, LANSDOWNE, BOURNEMOUTH, HANTS

LONDON OFFICE: BOWMAKER HOUSE, 55 ST. JAMES'S STREET, LONDON, S.W.1

*Members of the Finance Houses Association*

BRANCHES THROUGHOUT THE BRITISH ISLES





## Calculated compressor value

### The Rotair 150 portable rotary screw compressor

Compressed air at minimum cost is produced by the new Holman Rotair 150 portable rotary screw compressor.

Pulsation-free delivery of 150 cu.ft. of air per minute at 100 p.s.i. in one stage ensures high efficiency. Because of its capacity, initial cost and particularly low upkeep, the price of compressed air per cubic foot delivered is lower than for competitive machines. This calculated compressor value adds up to the finest 3-tool machine on the market.

Wear is negligible because positive clearances prevent metal-to-metal contact between the rotors and between the rotors and their casing. Literally no maintenance is necessary.

Rotair portable rotary screw compressors are available with outputs up to 600 c.f.m.


Write for publication 19/SP

Air... compressed air... **power...** **Holman**

Holman Bros. Limited, Camborne, England; Camborne 2275 and at 44 Brook Street, London W.1; HYDe Park 9444  
Also in Birmingham • Cardiff • Glasgow • Peterborough • Sheffield. Australia • Canada • East Africa • France  
India • South Africa • Spain • U.S.A. • West Africa. With Agents and Representatives throughout the world.

HM50





For  
contractors'  
plant

## **BANK ON BOWMAKER**

**and get credit for it**

Contractors' plant — and industrial equipment — can be bought on favourable credit terms through Bowmaker. Your local Bowmaker Branch Manager (under Bowmaker in the telephone book) will give you full details.

*Motor vehicles, farming equipment, school fees, central heating, a boat . . . Bowmaker credit plans solve a lot of immediate problems for a lot of people.*



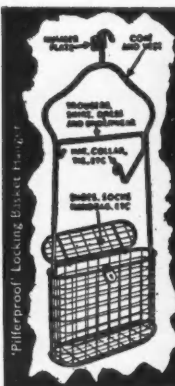
### **THE BOWMAKER GROUP**

HEAD OFFICE: BOWMAKER HOUSE, LANSDOWNE, BOURNEMOUTH, HANTS

LONDON OFFICE: BOWMAKER HOUSE, 55 ST. JAMES'S STREET, LONDON, S.W.1

*Members of the Finance Houses Association*

BRANCHES THROUGHOUT THE BRITISH ISLES



**SIEBER FOR**  
A '7 STAR' LOGICAL CLOAKROOM

- \* SAVES SPACE \* SAVES COST
- \* PRESERVES GARMENTS
- \* ENSURES HYGIENE
- \* REDUCES ABSENTEEISM
- \* AIRS AND DRIES WET CLOTHING
- \* MEETS NEW FACTORY ACT

Installed in Factories, Stores, Offices, Swimming Baths, etc., throughout the country.

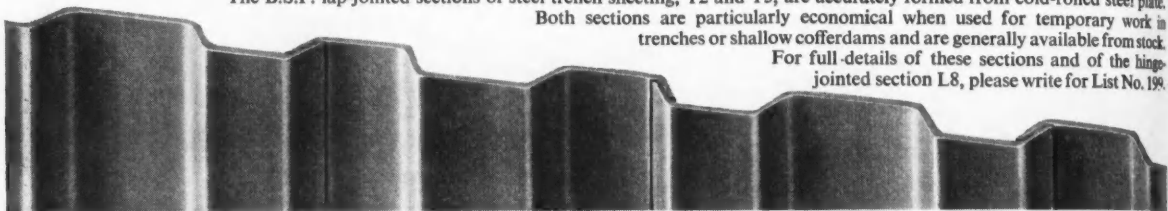
**JAMES SIEBER Equipment Co. Ltd.**  
Africa House, Kingsway, London, WC2  
Tel: HOLborn 4531, 5121



A photograph of your Mill or Factory TAKEN FROM THE AIR is a powerful asset in any advertising campaign. Also recent developments and future plans can be discussed by directors WITHOUT ACTUALLY VISITING THE SITE.

Also PERSONAL CHARTER and AERIAL ADVERTISING  
**AIRVIEWS LIMITED, Manchester Airport**  
Telephone: MERcury 2502 and 5262

## STEEL TRENCH SHEETING Lap-Jointed Section



The B.S.P. lap-jointed sections of steel trench sheeting, T2 and T3, are accurately formed from cold-rolled steel plate.

Both sections are particularly economical when used for temporary work in trenches or shallow cofferdams and are generally available from stock.

For full details of these sections and of the hinge-jointed section L8, please write for List No. 199.



TECHNICAL REPRESENTATIVES THROUGHOUT THE WORLD

**THE BRITISH STEEL PILING CO. LTD.**

10 HAYMARKET, LONDON, S.W.1.

Telephone: TRAFalgar 1024

BSP176

The most suitable material  
for **REINFORCING CONCRETE**



**SPENCER  
MESH**

in sheets or rolls

An electrically welded mesh manufactured in accordance with B.S.S. 1221/1945 Part 'A' from High Tensile Steel Wire drawn in our own mill. Oblong or square meshes for concrete reinforcement in floors, foundations, roofs, roads, etc. Standard size sheets and rolls always in stock. SPENCER MESH can also be supplied galvanized. Small meshes are ideal for partitions, fencing, screens, guards and many other applications. Available, if required, in small panels cut to your own specifications.

THE  
**SPENCER WIRE**

COMPANY LIMITED • WAKEFIELD

Telephone • WAKEFIELD 6111 (10 lines) • Telegrams • SPENCER, WAKEFIELD, TELEX

Telex No. 55,160

# DON'T LET IT GET YOU DOWN-

Thursday, 8th December, 1960

One JONES "Super 22" MOBILE CRANE; on pneumatics. Petter Diesel Engine. 24ft. Lattice Jib. Good Order .....£975

One 21/17 DOUBLE ROPE HANDLING GRAB. In first-class condition .....£95

One RUSTON 32RB Diesel-driven EXCAVATOR. Ruston Engine. Standard Dragline Equipment. Good standby machine .....£850

One GWYNNES 8in. GRAVEL PUMP. Mounted on Standard Gwynnes 25ft. by 14ft. Pontoon. Two Gardner 6LW Diesel Engines. Large quantity of floating pipework. Good condition .....£2,500

Two GWYNNES 65 cu. yd. capacity GRAVEL BARGES. New 1954. Beached. Excellent condition .....each £600

One RANSOMES and RAPIER 470 Diesel EXCAVATOR. National Diesel Engine. Face Shovel and Dragline Equipments. New 1946. In excellent condition .....£3,250

One JONES KL.22 2-ton Diesel MOBILE CRANE. New 1945. On pneumatics. Ruston Diesel Engine. New Cab. In sound working order throughout .....£745

One RUSTON 10RB ¾ cu. yd. Diesel EXCAVATOR. Dragline Equipment. 8000 Series. Tracks overhauled. In sound condition .....£625

One CHASESIDE 3½ cu. yd. Diesel DUMPER. New Dec. 1956. Fordson Engine. Fitted Cab. Overhauled in works, cleaned, repainted. Excellent condition .....£625

One MUIR-HILL Cardinal 1 cu. yd. Diesel Hydraulic LOADING SHOVEL. New Jan. 1958. Fordson Engine. Generally overhauled in works. Excellent condition .....£815

One RUSTON 33RB Diesel EXCAVATOR 14000 Series. New 1951. Current Ruston Report available. In good condition .....£5,500

One BARBER-GREENE 44C TRENCHER. Perkins P.6 Diesel Engine. 18in. Bucket line. New 1949. In good working order .....£475

One PARKER PORTABLE CONVEYOR. New 1956. 20in. Belt, 20ft. centres. Variable discharge height. Petter Diesel Engine. Very little used and in good order .....£275

One MUIR-HILL 14B DUMPER. New 1956. Perkins P.6 Diesel Engine. Heavy-duty tyres. Thoroughly checked over and in good condition .....£525

Three PRIESTMAN DOUBLE CHAIN HANDLING GRABS. 88 cu. ft. capacity heaped. Total weight 55cwt. In sound, serviceable condition .....each £245

One GREENS 7/8-ton Diesel ROAD ROLLER. Ex Ministry machine, believed new 1950. In "as new" and unused condition. Ford 4D Diesel Engine. Water Tank, Sprinklers, and Cab .....£1,250

One RANSOMES and RAPIER 6-ton Diesel/Electric MOBILE CRANE; on solids. New Perkins P.4 Diesel Engine. Full slewing. Ex Ministry machine. In excellent order .....£1,100

One WINGET 5THR 7/5 cu. ft. TILTING DRUM Diesel CONCRETE MIXER. Lister Engine. Generally overhauled, cleaned, repainted .....£195

One LANCASHIRE DYNAMO PORTABLE WELDING SET. 300-A. Armstrong-Siddeley air-cooled Diesel Engine. On single axle fast towing trailer. Thoroughly checked over, cleaned, repainted .....£365

## STOP PRESS!

One AIR PUMPS 2-tool Lorry-mounted COMPRESSOR UNIT. Air Pumps Compressor powered by Ford 4D Diesel Engine, mounted on Ford Thames Chassis, new 1957, powered by Ford 4D Diesel Engine. Complete with two Breakers, Hoses, and Steels. £725.

One JOHN DEERE/LANZ Diesel TRACTOR SHOVEL. Fitted ¾ cu. yd. Bucket. C/w Scarifier. Machine new February 1960. Powered by Perkins P.3 Diesel Engine. Demonstration machine—very little used. £2,000.

One DEUTZ Diesel TRACTOR SHOVEL. 65-h.p. air-cooled Diesel Engine. Fitted 1½ cu. yd. Bucket. C/w Hydraulic Soil Ripper. Machine new July 1959. In first-class condition throughout. £4,200.

# GET IT FROM MOORE'S



## MOORE'S PLANT LIMITED

Telephone: TOTtenham 0401 (10 lines)

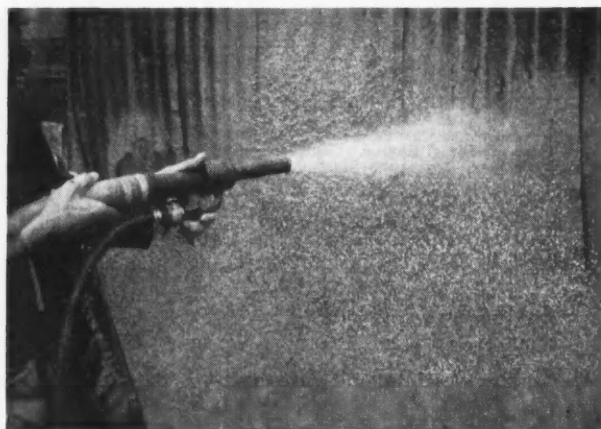
105/129 Markfield Road, Tottenham, London, N.15. 'Grams: "Morplanlim, Southtot, London"



# CONCRETE



# TRANSPORTING



# AND SPRAYING *through flexible piping!*

'LANCY' pneumatic units are more than concrete transporters, they also *spray* concrete, and cement mortar over large areas. They handle a small aggregate mix through flexible plastic piping, which enables them to be worked in confined spaces, as when tunnel lining.

The 'Lancy' system is a modern, fast, labour saving method of lining tunnels, canal banks, cuttings, reservoirs, constructing arches, walls, floors, etc. It is ancillary equipment to "Placy" pneumatic concrete placers and is available with capacities of 4½ cu. ft and 6½ cu. ft. *Send for full details.*

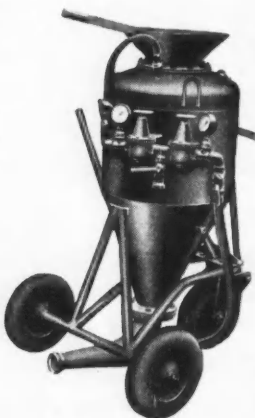
*Illustrated (top) The "Lancy" used for tunnel lining.  
(lower top) Spray coating*

**BRITISH BUILT C.P.O.A.G.**

# 'LANCY'

Manufactured in Gt. Britain and Distributed by  
**MACHINERY (CONTINENTAL) LTD.**

42, Park Street, London, W.1 HYDe Park 1401/2/3/4



## OPPORTUNITIES WITH **CUBITTS**

Applications are invited from men qualified to fill these positions:

### CIVIL OR STRUCTURAL ENGINEERS

for planning and design of projects in U.K. and Overseas. These Head Office (London) appointments offer responsible work on a variety of interesting projects, with good opportunities for promotion. Applicants must have contracting experience.

### MECHANICAL PROJECT ENGINEERS

qualified engineers for design of Heating and Ventilating and Mechanical Services systems for office blocks and all types of industrial plant. Must be well experienced in the calculation of heat transfer and liquid and gas flow.

### DRAUGHTSMAN

experienced in Heating and Ventilating and other Mechanical Services.

### COST SURVEYORS

for sites in London and the North West of England. Experienced in measuring all building trades for incentive bonus schemes and in unit costing.

*Please address your application to:*

**PERSONNEL MANAGER (S.A. SECTION),  
HOLLAND & HANNEN AND CUBITTS LTD.,  
1 QUEEN ANNE'S GATE,  
LONDON, S.W.1.  
Tel: Whitehall 3111**

If you are not yet sufficiently experienced for these vacancies but wish to have the opportunity to progress in the building industry, please write to our Personnel Department giving details of your career and stating your ambitions—we may be able to help you.

*Offices at:-*

EDINBURGH • GLASGOW • NEWCASTLE • LIVERPOOL  
BRISTOL • TORONTO • MONTREAL • VANCOUVER  
WELLINGTON, N.Z. • PORT OF SPAIN, TRINIDAD • BEIRUT



# SOME OF CUBITTS' INTERESTING PROJECTS

Throughout this country and overseas, Cubitts work on important new ventures: factories, motorways, universities, power stations, harbours, public buildings. The present-day scale of Cubitt projects offers great opportunities to men of all construction fields and skills.

Cubitt staff receive every encouragement to develop individual skills and ideas. Their efforts are backed by the up-to-the-minute outlook and worldwide

resources that make Cubitts leaders in their sphere.

Stability of employment is a major aim. This sets the right environment for personal progress, and also ensures that senior men have the support of vigorous and forward looking staff and workmen.

Men with sound experience in the industry are invited to contact the Personnel Manager, Mr. E. E. Batty, to discuss present and future vacancies in an organisation which offers a rewarding and secure future.



1 Hyde Park Corner



2 Glass Plant—Doncaster



3 Flats—Basildon

1. Cubitts are playing their part in the L.C.C.'s £5½ million Hyde Park Corner—Marble Arch Improvement Scheme, as a member of the Cubitts Fitzpatrick Shand consortium. Use of the Italian ICOS-Veder process for the first time in Britain makes it possible to construct reinforced concrete revetment walls before the trench for the underpass itself is dug.

2. Currently under construction, this 950 ft. long, 68 ft. wide and

55 ft. high building for a glass plant at Doncaster has a precast concrete frame in 25 ft. bays; the roof beams span 64 ft. without intermediate supports.

3. Cubitts are building a 160 ft. high block of flats as the dominant feature of Basildon Town Centre. When completed this will be the tallest residential building in any of the New Towns. The 14 storey block will stand on eight 27 ft. V-shaped pilotis.

HOLLAND & HANNEN AND CUBITTS LTD.,  
1 QUEEN ANNE'S GATE, LONDON, S.W.1.  
Tel. No. WHItEhall 3111

**CUBITTS**

**"CARTRUK"**  
 "THEY'RE ON SITE EVERYWHERE"  
 — Mobile Trailer Vans to suit all applications. 10', 12', 18' and 22' x 7' 6".



Illustrated 16' x 7' 6", Standard Model  
**CARTRUK LIMITED, BEEHIVE MILL, STOCKPORT**  
 Telephone: 5227/8

**CRANE HIRE**  
 CAPACITIES TO 25 tons JIB LENGTHS TO 120 ft.  
 RECONDITIONERS OF TRACTOR RUNNING GEAR  
 AND EARTHMOVING EQUIPMENT

WELDING  
 by  
 SUBMERGED  
 ARC



**H. SELLERS (LEEDS) LTD.**  
 79 CLARENCE RD., LEEDS, 10. PHONE: 34281/2

**DIVING SPECIALISTS**

Underwater  
 Surveys.

Underwater  
 Cutting,  
 Welding,  
 Explosive work.



**LTD.**

**UNDERWATER CONSULTANTS**  
 Immediate and efficient teams available anywhere in the world.

For Diving Contracts, consult:  
**MARTIN WELDING AND CUTTING CO. LTD.**  
 Tel: (day) Dartford 24139 **DARTFORD, KENT.** (night) Farningham 2452

**DIVERS, FROGMEN AND PLANT HIRED IF PREFERRED**  
 Rates from  
 £7 7s. per day.

**EASILY  
 EXTENDABLE  
 \* SITE  
 HUTTING**  
*That saves you  
 time and money*

★ NO REBUILDING NECESSARY  
 ★ ALL PARTS INTERCHANGEABLE

Easily lengthened after erection  
 by removing gable ends and  
 adding any number of sections.

**SPECIFICATION**  
 Individually made — 12' wide  
 x 6' eaves x 8' 8" ridge 12' long  
 and upwards in multiples of 6'  
 3/4" shiplap on 2" x 2" 3' x  
 3' metal windows every 6'  
 6' x 2' 6" door  
 1/2" T & G flooring on 2" x 3"  
 joists.

Price per 12' x 12' unit  
**£105 ex-works**  
 Separate sections quoted for

**A. & R. WAITE BROS.**  
 Riviera Drive  
 Southend-on-Sea, Essex  
 Telephone: Southend 64634

CANTEEN FURNITURE, SITE TOOL BOXES  
 etc. made to order

**FOR SALE AND HIRE — NEW!!**

**TRACK-MARSHALL CRAWLER TRACTORS**



**THE DADDY OF THEM ALL!!**

New Industrial Machines always in stock, or Available for Hire  
 Sales - Hire - Exchanges - Service - Spares  
 HAVE A DEMONSTRATION ON YOUR SITE  
 Telephone: YAXLEY 521-2 NOW!!

**A. J. SAUNDERS (TRACTORS) LIMITED**  
 YAXLEY, NEAR PETERBOROUGH

**\* MODERN FLEET OF CONTRACTORS PLANT NOW  
 AVAILABLE FOR HIRE IN THE LONDON AREA!**

**JACK BRANCH (LONDON)**

OFFICE:  
 293 BALLARDS LANE · FINCHLEY · N.12  
 Phone: HILLside 5068-9  
 Plant Manager: Mr. E. G. H. Parnell

CAMBRIDGE OFFICE:  
 Phone: WATERBEACH 571

ROYSTON OFFICE: Phone: ROYSTON 3007

WARRINGTON  
 Phone: PENKETH 2095

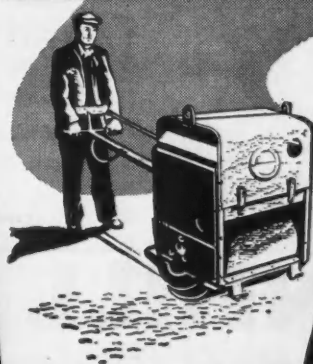
# COMPRESSORS

## FOR HIRE

- *Mobile*
- *Portable*
- *Stationary*
- *Diesel and Electric*
- *18 to 630 cu. ft. f.a.d.*

**also**

**VIBRATING ROLLERS**



CONTACT US FOR SERVICE

**CONTRACTORS SERVICES LTD**

65 EFFRA ROAD, LONDON S.W.2

TELEPHONE BRIXTON 4081



Telephone: GRA 3401-3

## ARTHUR FOSTER CONSTRUCTIONAL ENGINEERS LTD.

STEVENAGE ROAD, EAST HAM, E.6

**SPECIALIST IN HANDLING  
AND LIFTING ALL TYPES OF  
PLANT AND MACHINERY**



## COLUMN CLAMPS

These column clamps are all adjustable to columns of different dimensions. Manufactured from high-grade steel, they are indispensable to temporary shuttering and casings.

### SALE · HIRE

Sizes to suit columns from 10" to 4' 6"

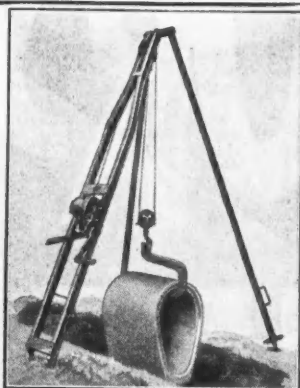
All Plant Fully Guaranteed to meet our Specification

*The finest on the market today—  
and the keenest prices in the field*

Full details from the actual Manufacturers:- **AUDAX**  
CENTRAL AVENUE, WEST MOLESEY, SURREY



Tel: Molesey 6071 (5 lines)



## "MACO" Pipe-Laying WINCH

½ to 2 TON CAP.

All-steel, light,  
portable and  
efficient

• Pipe Dogs  
all sizes

• Write for  
Catalogue

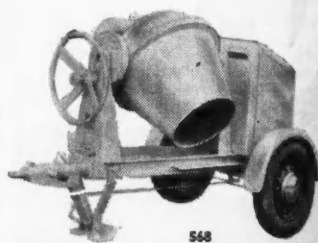
539

## MAXIMIXAM CONCRETE MIXERS

TRAILER AND  
STANDARD  
MODELS

7/5-5/3½-4/3-3/2

Diesel, Petrol  
and T.V.O.



568

5/3½ HIGH-SPEED TOWING MODEL

PETROL £165.0.0 } DELIVERED  
DIESEL £210.0.0 }

**M. E. ENGINEERING LTD.** DEPT. F.B. 457 FINCHLEY ROAD, **LONDON, N.W.3**  
TELEPHONE: HAMstead 7481 (3 lines)



50 TON COLES 'CONQUEROR'

# G.W. SPARROW E. SONS LTD CRANE HIRE SPECIALISTS & LIFTING CONTRACTORS

★ LIFTS UP TO 50 TONS

★ DISTANCE NO PROBLEM

★ JIBS TO 170 FEET

★ 'PHONE BATH 78158 OR 78450

**G. W. SPARROW AND SONS LIMITED**  
LOWER BRISTOL ROAD · BATH · SOMERSET

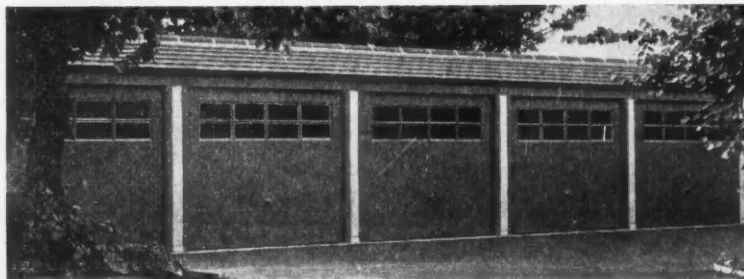


15 TON N.C.K. PENHILL

# PENHILL

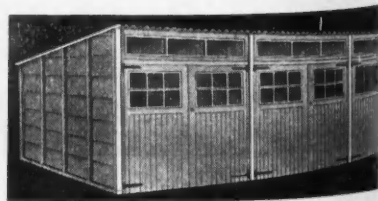
REINFORCED PRECAST CONCRETE  
**GARAGE RANGES**

Attractive  
**TILED FRONT**  
and  
**PENT ROOF**  
Designs



The combination of outstanding appearance, durability, and keen prices, make Penhill Ranges a sound investment. Smooth-finish vibrated panels and posts. Tiled Front or Pent Roof with asbestos roofing. Easily erected. Choice of tiles and doors. Stands securely on a flat base without anchoring. Full installation Service available. Details of the complete range of Penhill single or multiple garages gladly forwarded. Special terms to Builders and Contractors. We shall be pleased to forward estimates for non-standard requirements.

**PENHILL SUPPLIES (Sidcup) LTD**  
471 Blackfen Rd., Sidcup, Kent Telephone: Baxleyheath 00547  
Works at Reigate and Dartford





Lollies up, lads! Boys in a Cotswold village tuck in as their favourite refreshment is unloaded from an Eldorado Austin.

In Oxford's busy traffic an Eldorado 5 ton Austin passes Christ Church College.

To London's Leicester Sq. Theatre Austin brings evening supplies from Eldorado.

## Austin and the Ice Cream year of the century

Will we ever have another summer like that of 1959? Odds are 200 to 1 against it in years. But what a summer it was! And what a summer for ice cream!

Over 1,000 tons of Eldorado ice cream were delivered every week. Never were vehicles put to such a test. All day, 7 a.m. till 10 p.m., every day (Sundays too) Eldorado's 140 Austins were on the move. From 44 depots between Inverness and Truro, Austins delivered to shops, cinemas, restaurants, hotels, holiday camps, beach kiosks, Army and Air Force bases. Some, to ease peak pressure, made all-night runs from London to the North.

### To the summit—By Austin

One Austin even climbed a mountain! Place—a Derbyshire peak. Destination—a cafe at the summit. And the owner's challenge to Eldorado: "I'll sell it if you

can get it here." It meant a daily hair-raising climb up a rocky footpath—a climb no other vehicle had attempted. But the Austin, a 2 tonner, got there. And Eldorado collected several new accounts in the district.

### Most strenuous delivery service

"In peak times ours is perhaps the most strenuous delivery service any vehicle can make," says Mr. W. J. Thomas, Eldorado's Transport Manager. "Our Austins stand up to real punishment. In fact, they haven't time to break down. To avoid idle vehicles in off-peak times we keep our fleet to a minimum. So reliability is absolutely vital. Ice cream is a 7 day week and

when something unusual, like last summer, occurs, we must depend on the reliability of our vehicles more than ever."

Even in off-peak times, Eldorado's Austins, from  $\frac{1}{2}$  ton vans to 2, 3 and 5 ton trucks, are busy, particularly in the mud and rough at race meetings and showgrounds. "We are turning over more and more to Austin," say Eldorado.

The entire Austin commercial range— $\frac{1}{2}$  ton vans to 7 ton trucks—is warranted for 12 months and backed by B.M.C. Service.

# AUSTIN



THE AUSTIN MOTOR COMPANY LIMITED  
LONGBRIDGE · BIRMINGHAM

# THE GREENHAM GROUP

## SELECTED ITEMS FROM STOCK:—

### TOWER CRANES

KTK 42W Schwing Climbing Tower Cranes, new 1959, luffing jibs, capacity 28cwt. at 100ft. to 55cwt. at 50ft. radius. Can be seen working in Midlands

KTK 28W Schwing Climbing Tower Crane, new and unused, capacity 28cwt. at 66ft. to 55cwt. at 33ft. radius. Lying London area

Jules Weitz G.12 Saddle Jib Tower Crane, new 1959, suitable for 22ft. radius rail track, capacity 15cwt. at 52ft. 6in. to 50cwt. at 19ft. radius First-class order, only used on one contract.

Buildmaster 150 Tower Crane, new 1953, suitable for 16ft. radius rail track, capacity 20cwt. at 59ft. to 50cwt. at 23ft. radius.

### BATCHING PLANT

20-ton Portasilos, new June, 1956, complete with Pullwey, aeration unit and batch counter. Repainted and in first-class condition

14 cu. ft. Road Machines Twin Bucket Swing Weighbatcher. Checked over, shotblasted and repainted

S.G.M.E. Batching Plant, new 1958, consisting of: two 1½ cu. yd. Mixers with supporting structure; Hopper, Weighbatcher, two 56-ton Silos and electric Elevators; two S.G.M.E. Vibro Finishers; two S.G.M.E. Concrete Spreaders; one S.G.M.E. Vibro Joint Cutter. All in very good condition having been used in one contract only. Full details and price on application.

### SHOVELS AND TRACTORS

Caterpillar No. 6 Tractor Shovel, new 1955, 2½ cu. yd. Bucket and Cat. No. 6 Ripper. Recent overhaul, Ripper as new

Caterpillar HT4 Tractor Shovel, 7U Series, fitted with Scarifier and 1½ cu. yd. Bucket. Very good condition

HD5G Allis Chalmers 1½ cu. yd. Tractor Shovel, 1955, reconditioned tracks, excellent condition. Repainted

HD6G Allis Chalmers 1½yd. Tractor Shovel, 1957. First-class condition

BTD6 Bullgrader, tracks, sprockets and idlers overhauled and complete with Stirling 3½-5yd. hydraulic Scraper which is as new. Repainted

Fowler Challenger Mk. III Angledozer, recent works rebuild

### HOISTS

7cwt. Wickham Mobile, J.A.P. Petrol, c/w platform and masts

7cwt. Wickham Static, Petter Diesel, with masts. First-class condition

10cwt. Wickham Static, Ruston Diesel. First-class condition

15/20cwt. B.H.C. Centre-slung Hoist, Petter Diesel. Overhauled and repainted

Number of Rollover and Bottom Discharge Skips available. Details on application.

### CONCRETE MIXERS

5/3½ Blaw Knox, Winget, Parker, Stothert and Pitt, Petrol, steel or tyred wheels. First-class condition each

10/7 Stothert and Pitt, Petter Diesel, Hopper fed, four steel wheels. Working order

10/7 Stothert and Pitt, Lister Diesel, Hopper fed, four steel wheels. First-class condition each

10/7 Rex, Ruston Diesel, Closed Drum, Hopper fed, four steel wheels. First-class condition

14/10 Rex, Electric, 400-440/3/50, complete with Weighgear, four steel wheels. First-class condition

14/10 Rex, Ruston Diesel, Closed Drum, Hopper fed, four steel wheels. First-class condition

## GREENHAM EQUIPMENTS LTD.

CLAYTON ROAD, RUISLIP ROAD, GREENFORD, MIDDLESEX

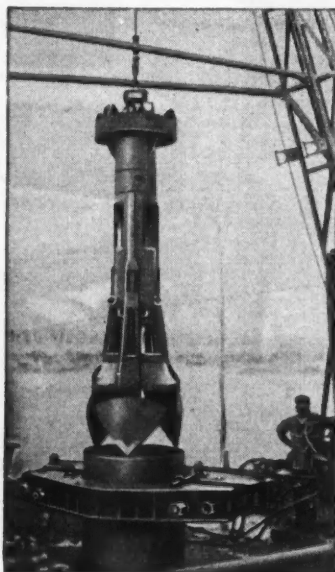
Let's ring VIKING 3651



## FOR BETTER RESULTS AND EFFICIENCY

USE

# BADE Single Rope Hammer Grabs



£450

£140

£5,000

£2,500

£1,700

£2,350

£1,500

Offers

£75

£115

£145

£295

£75

£95

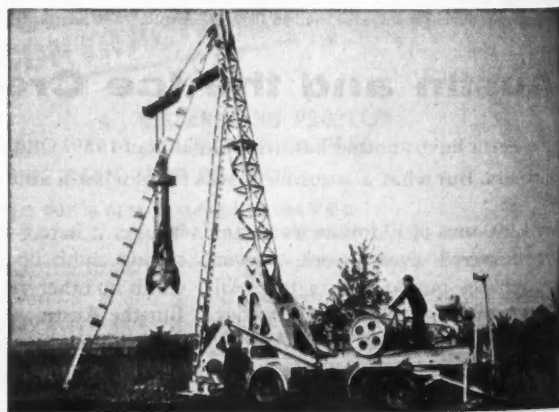
£195

£195

£425

£250

Model	Cutting dia. of crown	Max. Boring dia. approx.	Number of blades	Dia of guide ring	Weight		Min. dia. of tubes	
					of Grabs approx.	Hooking crown	O.D. inch	I.D. inch
E-32-2	14½"	17½"	3	-	1720lbs.	187lbs.	16½"	15½"
	16½"	20½"		-	1764lbs.		18½"	17½"
	20½"	25½"		18½"	1841lbs.		22½"	21½"
	24½"	29½"		21½"	1962lbs.		26"	24½"
E-43-2	28½"	33½"	3	24½"	2866lbs.	243lbs.	30½"	29½"
	38½"	43½"		32½"	3307lbs.		39½"	38½"
	47½"	59"		43½"	4410lbs.		50"	48"



### MODEL HVM BG 15

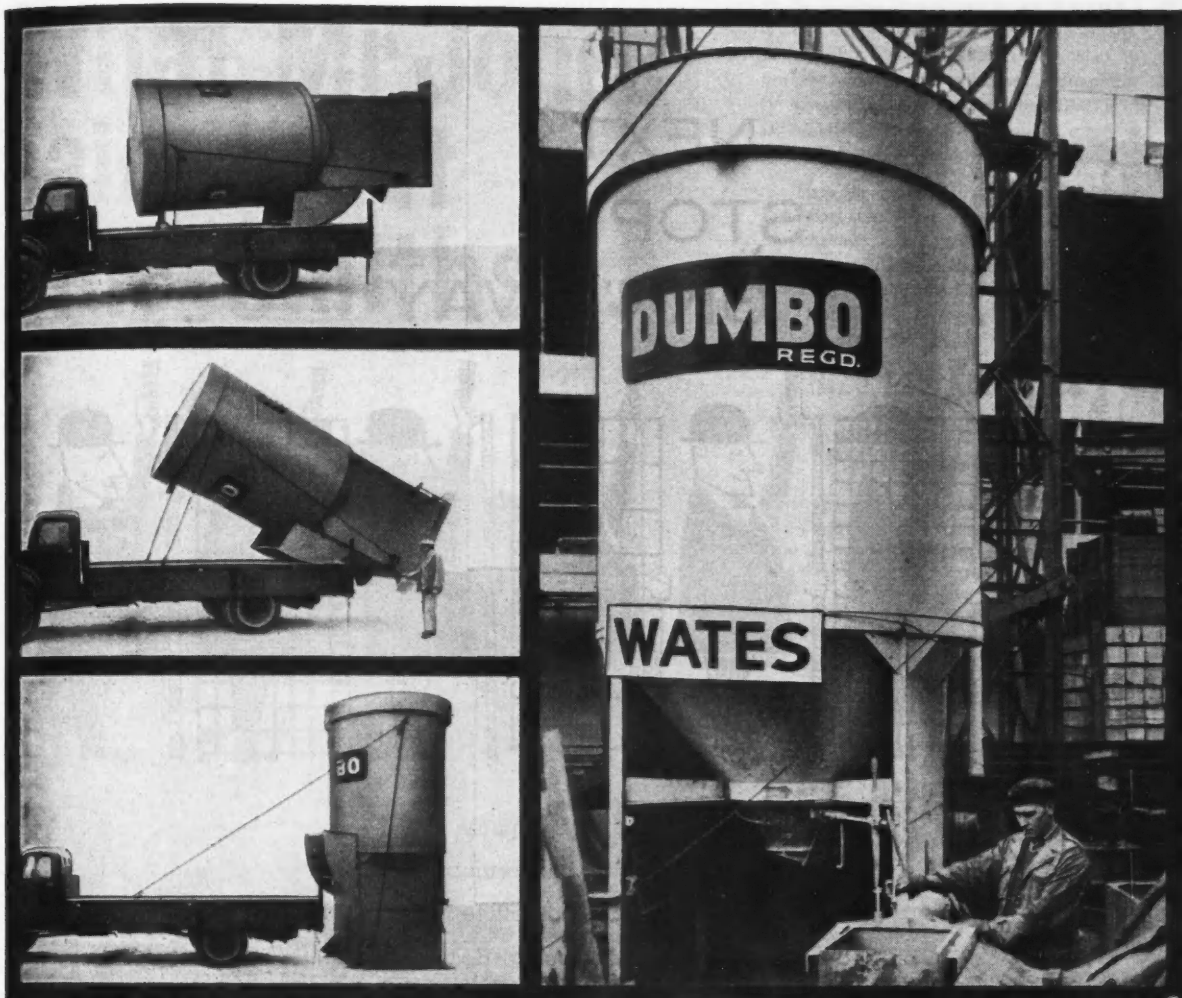
Hydraulic Tube Sinking and Extracting Machine incorporating E-32-2 Hammer Grab. Application: Bored Pile, Well Drilling.

Please ask for detailed information.

## C.E.T. (EQUIPMENT) LIMITED

BURLINGTON WORKS, ABBEY ROAD, PARK ROYAL, LONDON, N.W.10  
Tel.: ELGAR 8777 (4 lines)





Patent Numbers 764310 and 764311

Photograph by kind permission of Messrs. Wates Ltd.

# DUMBO

## SELF-ERECTING HOPPER

for cement and other dry powders in bulk —  
offers all the advantages

### Special Features

Can be loaded or off-loaded by one man in a matter of minutes  
Automatic Weighing  
Simple Operation  
Simple Maintenance  
Robust all Steel Construction  
Long Life  
No condensation problems

Minimum risk of damage when loading and off-loading

Filter of adequate area needing minimum maintenance

Access ladder and windshields are included in the price

With additional Dispenser can feed two Mixers

10-20-30 tons (Cement) capacities

**ALC**  
BEST FOR BULK

### AMALGAMATED LIMESTONE CORPORATION LTD.

"Bulk Handling Department", 15 Stanhope Gate, London, W.1  
Telephone: GROsvenor 3611 (10 lines)

### ABELSON & COMPANY (ENGINEERS) LTD.

Coventry Road, Sheldon, Birmingham, 26  
Telephone: SHEldon 2424 (10 lines)

MANCHESTER—Telephone: ARDwick 1328

LONDON—Telephone: MACaulay 3407

### SCOTLAND

J. & W. Henderson Ltd., Upper Quay, ABERDEEN  
Telephone: CENTRAL 29313

Johnstons & Paton Ltd., 8 Newton Place,  
GLASGOW, C.3. Telephone: DOUGLAS 8114

### NORTHERN IRELAND

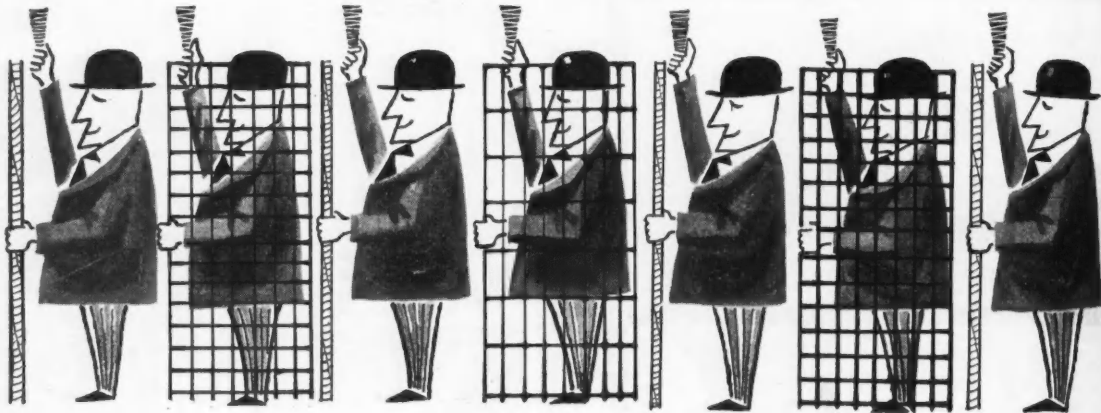
McNeill (Engineering) Ltd., 78 Duncrue Street,  
BELFAST, 3. Telephone: BELFAST 745211/6

### EIRE

McNeill (Ireland) Ltd., Collinstown Cross,  
Cloghran, Co. Dublin.  
Telephone: DUBLIN 371601/2



## NEXT STOP GKN'SWAY\*



A well known company,  
which for the moment shall remain nameless,  
announces that their London office is moving from  
Gknightsbridge to Gkn'sway (\*sorry-KINGSWAY!).  
At these new premises (of reinforced concrete,  
of course) the business of supplying and designing  
everything connected with putting steel into concrete  
will continue gknormally.  
Pausing only to engage a new copywriter, we will once  
again repeat the theme. Our new address, from  
9th January 1961, will be:—

**G.K.N. House,  
22 KINGSWAY,  
LONDON, W.C.2  
Telephone: CHAncery 1616**

... and if you still don't gknow who we are, then  
we suggest you reinforce your gknowledge with ...

**GKN Reinforcements Ltd.**



# What Mr Jones\* said about the Smiths ...

\* Mr. Alwyne Humphreys Jones, F.R.I.C.S., is Chief Engineer to the Gwynedd River Board, Wales. Mr. Jones made a flying visit to our headquarters, at Rodley, with transporter vehicle and crew, to pick up a new SMITH 12 DRAGLINE — the NINTH such machine supplied to the Gwynedd River Board.

Says Mr. Jones: "The work done by our excavators is mainly in regrading and realigning river channels, and forming flood embankments for our larger rivers in the lowland areas. Our capital expenditure on Smith draglines has been more than justified by the operational efficiency of these machines."

## Nine 12's add up to real confidence in Smith Draglines!

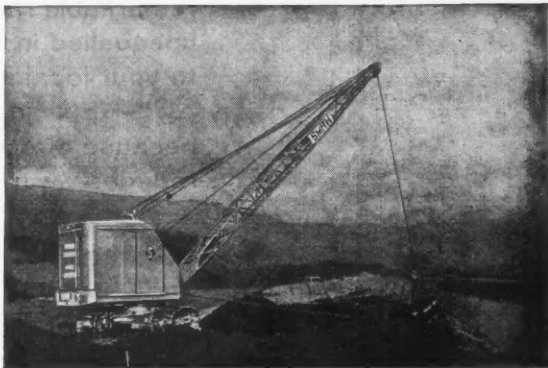
When an important customer repeats his order again and again, it means that he's found the right excavator for the task in hand.

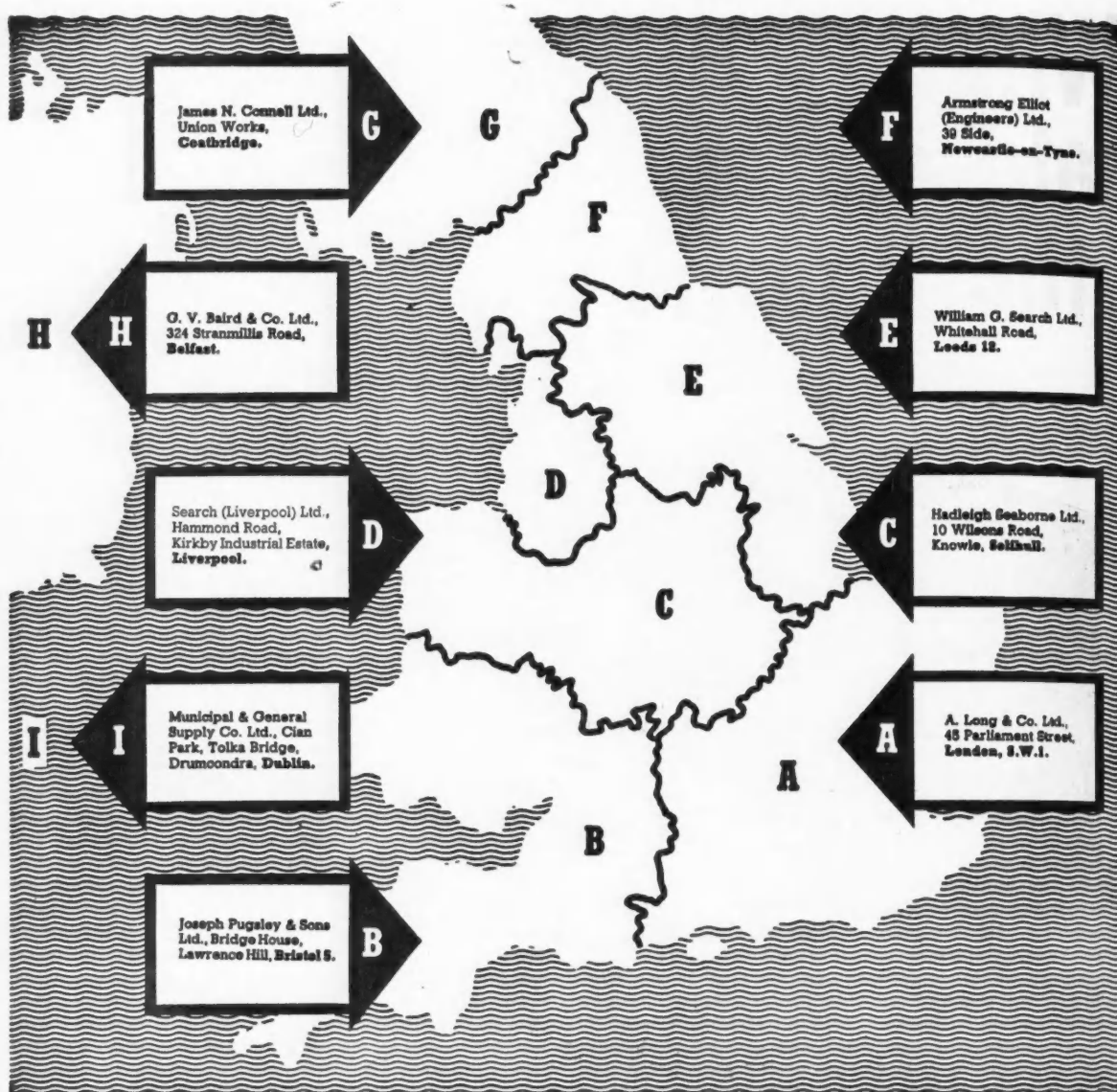


**universal excavators**

(Detailed specification available)

THOMAS SMITH & SONS (RODLEY) LTD • RODLEY • LEEDS • ENGLAND





anywhere . . . everywhere . . .

## KUE-KEN CRUSHERS FOR THE BRITISH ISLES

Throughout the British Isles there are agents for the remarkable range of KUE-KEN Crushers, which are unequalled in their efficiency and economy. Write to your local agent for full details.

KUE-KEN jaw plates last 5-10 times longer, because direct pressure-crushing without rubbing-reduces wear.



**ARMSTRONG WHITWORTH (Metal Industries) LIMITED**

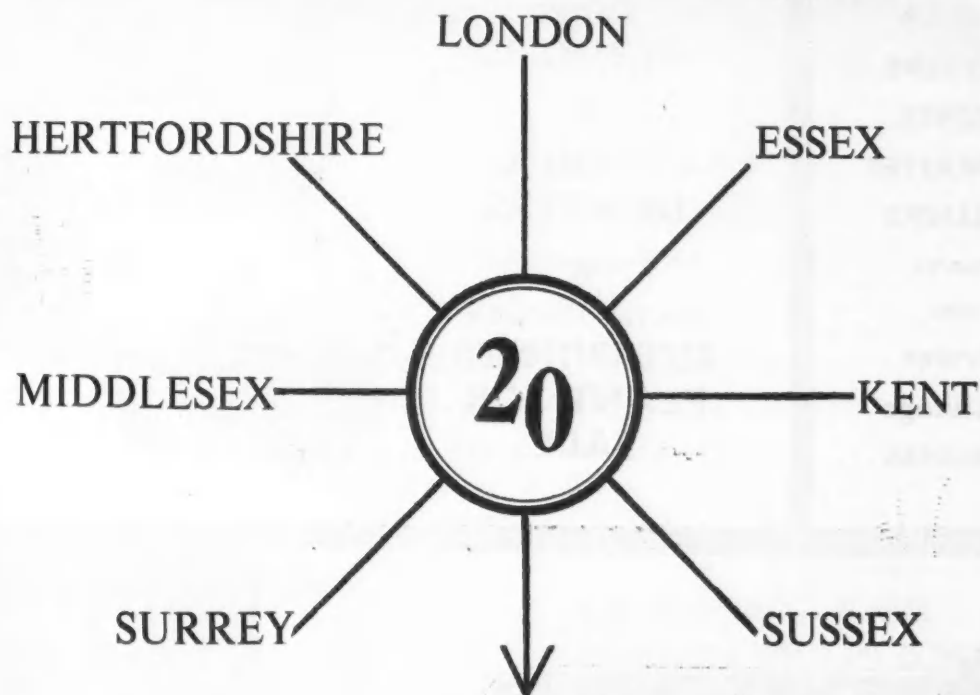
Close Works, Gateshead-upon-Tyne 8  
Telephone: Gateshead 71261

**ARMSTRONG WHITWORTH (Metal Industries) LIMITED**

Steel Foundry: Western Road Works, Jarrow, Co. Durham

# TWENTIETH CENTURY EQUIPMENT Co. (LONDON) LTD.

ANNOUNCE THEIR APPOINTMENT AS  
DISTRIBUTORS FOR THE SALE OF THE



*ENQUIRIES*  
FOR DEMONSTRATION • SERVICE • SPARES  
TO

244 HARROW ROAD, LONDON, W.2.

CUNningham 0291 or Reigate 4431



# SALE AND HIRE

**DANDRIDGE  
(SPARES)**

**LTD.**

has  
complete  
stocks  
of

**J.A.P.**

**LISTER**

**PETTERS**

**RAPIER**

**THWAITES**

**VILLIERS**

spares

also

**Service**

**Exchange**

**ENGINES**

**Centrifugal  
and  
Diaphragm  
PUMPS**



**Concrete  
MIXERS**



**HOISTS**



**VIBRATORS**



**COMPRESSORS**



**Vibratory  
ROLLERS**



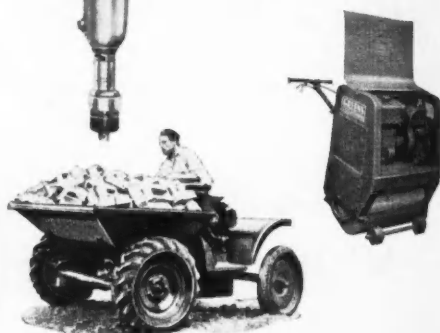
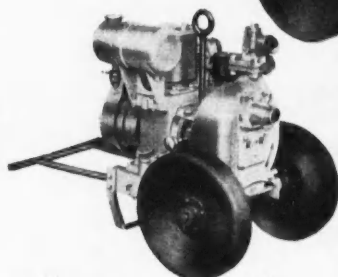
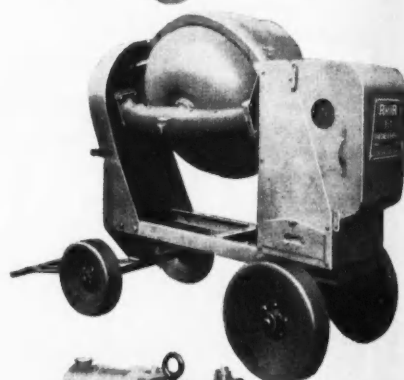
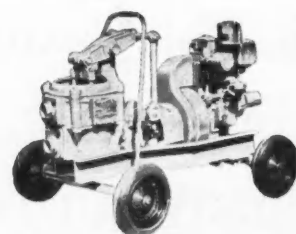
**Kango  
HAMMERS**



**Thwaites  
DUMPERS**



We can also offer  
**RECONDITIONED  
PLANT FOR  
SALE**



**THE GREENWICH PLANT DEPOT**

129-143, WOOLWICH ROAD • LONDON • S.E.10. GRE 6333/6

**50**  
YEARS  
OF SERVICE  
TO THE  
ENGINEER &  
CONTRACTOR



**... goes  
into  
action !**

New roads, new bridges, new construction — whatever the project, if it calls for on-the-spot aggregate production there is a complete range of Pegson Portable Plants to suit all needs. These incorporate standard crushing, screening and storage units, or stockpiling conveyors, for small or large outputs of clean-crushed, graded aggregates.

*Literature available on request*

**PEGSON**

*portable*

**CRUSHING AND  
SCREENING PLANT**

*Built within the Bentley Group by*

**PEGSON LTD • COALVILLE • LEICESTERSHIRE • Tel: 1234 (10 lines)**

London Office : Iddesleigh House, Caxton Street, S.W.1. Telephone : Abbey 2373.

Scottish Office : 7, Lister Road, Hillington Industrial Estate, Glasgow. Telephone : Halfway 1800.

**EASTWOODS****CEMENT**

for "on site" delivery  
in bulk . . . . .

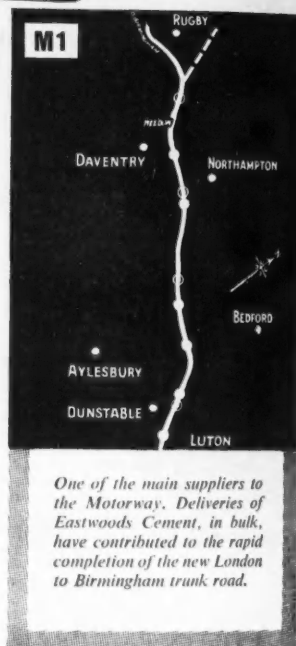


or bags



For faster construction on modern roads and buildings so much depends on reliable deliveries of cement—when you want them—where you want them—how you want them. The Eastwoods Service gives prompt attention to your requirements. On time, scheduled deliveries of finest grade Portland or "Durocrete" Rapid Hardening Cement—either bagged, bulk

—tipped or pressurised—can be made to your site from three cement works at Barrington (Cams), South Ferriby (Lincs), and Lewes (Sussex).



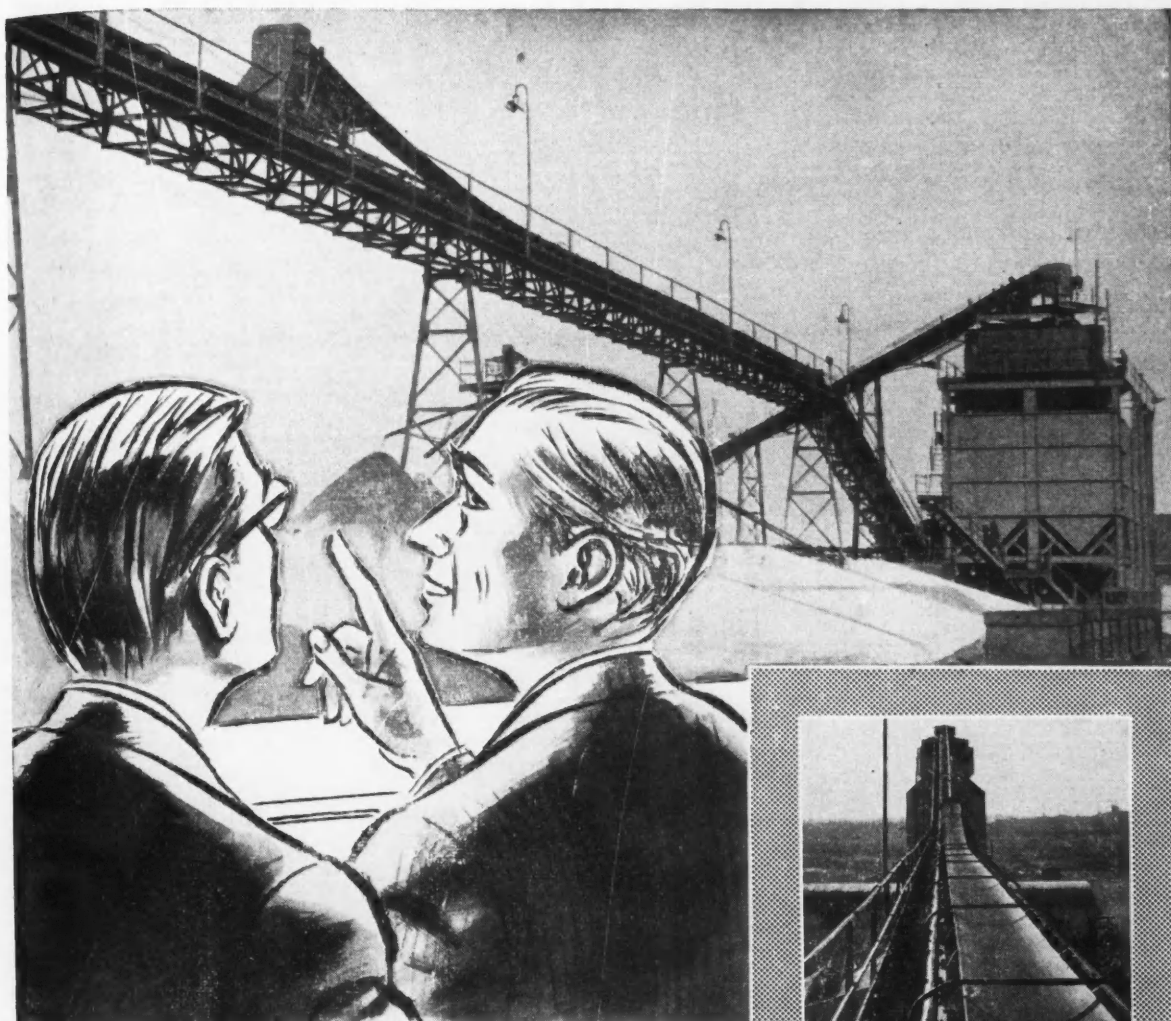
## EASTWOODS SALES LIMITED

Head Office: Eastwood House, 158-160 City Road, London, E.C.1. Telephone: CLerkenwell 2040 (30 lines)

Northern Area Sales Office: 39 Thorne Road, Doncaster  
Telephone: Doncaster 49256/7

Lewes Cement Sales Office: Southerham, Lewes, Sussex  
Telephone: Lewes 500/1

Depots at: CAMBRIDGE, 117 East Road, Tel: Cambridge 55514/52087; COVENTRY, Sandy Lane, Tel: Coventry 28701/2; DONCASTER, Crompton Road, Tel: Doncaster 61442/49256; EASTLEIGH, Allbrook, Eastleigh, Hants, Tel: Eastleigh 2621/2; GILLINGHAM, Trafalgar Street, Tel: Gillingham 51088/9; GREENWICH, Norman Road, S.E.10, Tel: GREENWICH 1172/3; HILLINGDON, Uxbridge Road, Tel: Uxbridge 37391/2/3; IPSWICH, Cumberland Street, Tel: Ipswich 53794/5; ISLEWORTH, 11 The Square, Tel: Isleworth 2271/2; KINGSLAND, 4 Orsman Road, N.1, Tel: SHoreditch 4133/4; KING'S LYNN, South Everard Street, Tel: King's Lynn 3718; LEEDS 7, 320 Meanwood Road, Tel: Leeds 43401/2; LETCHWORTH, Birds Hill, Tel: Letchworth 1700; MORTLAKE, High Street, S.W.14, Tel: PROspect 7231/2/3; NORWICH, Rosary Road (NOR 22S), Tel: Norwich 21498; SOUTHEND-ON-SEA, Fairfax Drive, Southend, Essex, Tel: Southend 48171/2; SUDBURY (Suffolk), North Street, Tel: Sudbury 2895/6; WEMBLEY, 133a Wembley Park Drive, Tel: WEMbley 5404/5; WEYBRIDGE, Bridge Wharf, Tel: Weybridge 3963.



"I'm saving — yet increasing  
production by using

**MAXIM**

conveyors"

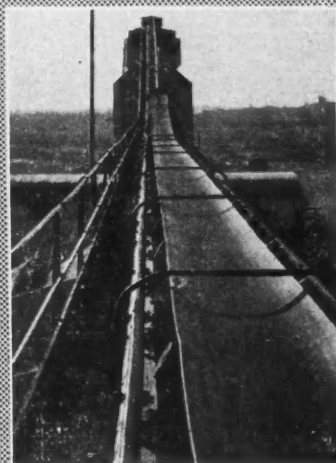
There are so many advantages to be gained by installing Maxim Conveyors. All parts standardized and interchangeable — easy erection — operate with minimum supervision — less down time for maintenance. You too can get MAXIMUM production with minimum outlay for all types of belt conveyors and general material handling equipment. *Extended credit terms enable delivery to be made upon payment of 10% deposit, the balance being paid over any period of up to three years.*

May we send you details?

**MAXIM CONVEYORS (ENGLAND) LTD.**

Crabtree Manorway, Belvedere, Kent

Telephone : Erith 4223 and 5751





## CONTRACTS

## ROYAL COUNTY OF BERKSHIRE.

HIGHWAYS ACT, 1959. PART IX.  
PRIVATE STREET WORKS.

TENDERS are invited for MAKING-UP GRANT ROAD, CROWTHORNE. The works comprised in this Contract are as follows: Approx. 1,300 sq. yd. of Hardcore and Bituminous Macadam Carriageway; 900 sq. yd. of Bituminous Macadam and Asphalt Footways; 450 lin. yd. of Kerbing; and incidental works. Drawings may be inspected at, and Specification, Bill of Quantities and Form of Tender obtained from, the Office of the COUNTY SURVEYOR, Shire Hall, Reading, on payment of a deposit of £2.

The deposit will be refunded on receipt of a bona-fide Tender.

Tenders, in envelopes provided, must be returned by not later than 12 Noon on FRIDAY, 16th December, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

## GLOUCESTERSHIRE COUNTY COUNCIL.

BURFORD-EVESHAM ROAD, A.424—  
WYCKHILL IMPROVEMENT.

TENDERS are invited for WORK on the ABOVE SCHEME, situated at WYCKHILL, on the Burford-Evesham Road, approx. 2 miles south of Stow-on-the-Wold. The works consist of Site Clearance, Earthworks, Widening of the existing Carriageway to 24ft., Drainage and ancillary works, but exclude surfacing. The length of the improvement is approx. 1,500 yd. Tender documents can be obtained from the County Surveyor, Quay Street, Gloucester, on payment of a deposit of £5, payable to the Gloucestershire County Council, which will be refunded on receipt of a bona-fide Tender, not subsequently withdrawn. Tenders, in plain sealed envelope, endorsed "Tenders for Wyckhill Improvement," must be received by the County Surveyor, Quay Street, Gloucester, not later than 10 a.m. on WEDNESDAY, 4th January, 1961. The Council does not bind itself to accept the lowest or any Tender.

GUY H. DAVIS,  
Clerk of the Council.

Shire Hall,  
Gloucester,  
December, 1960.

## BOROUGH OF ENFIELD.

40 DWELLINGS, 36 GARAGES—  
SOUTHWAY AVENUE, ENFIELD.

Building contractors desirous of tendering for the ERECTION OF 12 FLATS, 20 FLATLETS, EIGHT HOUSES and 36 GARAGES—SOUTHWAY AVENUE, Enfield, should apply to the Borough Engineer and Surveyor, MR. H. DERYCK PEAKE, M.Sc.(Eng.), M.I.C.E., 7 Little Park Gardens, Enfield, by First Post, Wednesday, 14th December, 1960. Bills of Quantities and Forms of Tender will be forwarded on or about the 19th December, 1960.

All applications must be accompanied by a deposit of £2 2s., to be returned on receipt of a bona-fide Tender addressed to the undersigned and/or the return of all documents.

Plans and Conditions of Contract may be inspected at the offices of the Borough Engineer as aforesaid on or after the 21st December, 1960, on Mondays to Fridays, between the hours of 9 a.m. and 12.30 p.m. Tenders must reach the undersigned not later than Noon on THURSDAY, the 12th January, 1961, and no Tender will be received except in a plain envelope, which must be sealed and must bear the words "Tender for 12 Flats, 20 Flatlets, Eight Houses and 36 Garages—Southway Avenue, Enfield," but shall not bear any name or mark indicating the sender.

The Council do not bind themselves to accept the lowest or any Tender.

Contractors tendering will be required to submit particulars of similar works which have been carried out by them.

CYRIL E. C. R. PLATTEN,  
Town Clerk.

Public Offices,  
Enfield,  
Midxx.  
2nd November, 1960.

## BOROUGH OF CASTLEFORD.

CONTRACT NO. 158.

ERECTION OF 72 DWELLINGS IN NINE 3-STORY BLOCKS—WHITWOOD MERE HOUSING ESTATE.

TENDERS are invited for the ERECTION and COMPLETION OF 72 DWELLINGS IN NINE 3-STORY BLOCKS, complete with External Works, Drainage and Services, at Whitwood Mere Housing Estate, Castleford.

Copies of the Contract Drawings and Form of Contract may be inspected at the Office of the Borough Engineer and Surveyor, Town Hall, Castleford, from whom copies of the Form of Tender, General Conditions, Preliminaries, Specification and Bill of Quantities may be obtained on the payment of a deposit of Two Guineas which will be refunded only upon the receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in plain sealed envelopes endorsed "Erection of 72 Dwellings—Whitwood Mere Housing Estate," but otherwise bearing no mark or indication of the sender, must be received by the undersigned not later than 9 a.m. on THURSDAY, 22nd December, 1960.

ERNEST HUTCHINSON,  
Town Clerk.

Town Hall,  
Castleford, Yorks.

## BOROUGH OF EALING.

EXTERNAL PAINTING—WALFORD SECONDARY SCHOOL, BENGARTH ROAD, NORTOLT.

TENDERS are invited for the ABOVE-MENTIONED WORK. Specification and Tender Form from Borough Engineer, Town Hall, Ealing, W.5. Closing date 22nd DECEMBER, 1960.

E. J. COPE-BROWN,  
Town Clerk.

## BOROUGH OF LUTON.

HOUSING DEPARTMENT.

TENDERS are invited for STRIPPING EXISTING SLATED ROOFS, FLOPPING, BATTENING AND TILING with NEW CONCRETE TILES to 20 HOUSES in SELBOURNE ROAD, Luton.

Specifications, General Conditions, forms of Tender, etc., are obtainable from the Director of Housing, Town Hall, Luton, on the payment of a deposit of Two Guineas, returnable on receipt of a bona-fide Tender, and must be returned in the plain envelope provided, to the TOWN CLERK, Town Hall, Luton, by Noon on THURSDAY, 22nd December, 1960. The Corporation do not bind themselves to accept the lowest or any Tender.

## CONTRACTS

## BOROUGH OF HARROW.

ANNUAL CONTRACTS, 1961-62.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING MATERIALS, and for the EXECUTION OF WORKS during the year ending 31st March, 1962:—

Schedule

- (1) Igneous Rock Chippings.
- (2) Tarred Slag, Tarred Granite and Tarred Limestone.
- (3) Sand, Shingle, Ballast, Gravel, Hoggins and Ashes.
- (4) Concrete Flags and Kerb.
- (5) Tar, Tar-Bitumen Mixture and Cut-back Bitumen Applied by Pressure Tank.
- (6) Road Castings.
- (7) Concrete Pipes and Fittings.
- (8) Bitumen Macadam and Fine Cold Asphalt.
- (9) Petrol and Oils.
- (10) Bitumen Macadam and Fine Cold Asphalt Supplied and Laid by Machine, and Preparatory Works.
- (11) Reinstatement of Kerbing and Paving on Footways (Labor only).
- (12) Repair and Construction of Sewers.
- (13) Repair and Maintenance of Highways.

Forms of Tender may be obtained from the Borough Engineer, Council Offices, 48 Uxbridge Road, Stanmore, Middlesex. Applicants should indicate the schedule number for which forms are required. A stamped foolscap envelope should accompany the application.

Tenders must be returned to me not later than 21st DECEMBER, 1960, in sealed plain envelopes bearing no name or marks indicating the sender, and endorsed "Tender for Annual Contracts."

The Council does not bind itself to accept the lowest or any Tender.

DAVID PRITCHARD,  
Town Clerk.

Council Offices,  
Harrow Weald Lodge,  
Uxbridge Road,  
Harrow.

## CITY OF CARLISLE.

LONDON ROAD PRIVATE DEVELOPMENT ESTATE.

ROADS AND SEWERS.

TENDERS are invited for the ABOVE. The work comprises 11,180 sq. yd. of Carriageway in "Wet Mix," and 5,740 lin. yd. of 12in. and 9in. Sewers, plus Manholes, Gullies, etc. Particulars from the Borough Engineer, 18 Fisher Street, Carlisle, closing date, 12 Noon, 19th DECEMBER, 1960.

H. D. A. ROBERTSON,  
Town Clerk.

## THURLOCK URBAN DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPARTMENT.

MAINTENANCE WORKS ON HIGHWAYS, 1960-61.

TENDERS are invited for the WHOLE of the FOLLOWING MAINTENANCE WORKS on Highways and Drainage Works:

- (i) A.13 west of C.B.
- (ii) A.13, Stanford-le-Hope By-pass (A.1014 to B.1420).
- (iii) A.128, St. Chad's Road, Tilbury, by Junction Feenan Highway.
- (iv) A.128, St. Chad's Road, Tilbury-Christchurch Road-No. 103 St. Chad's Road.
- (v) A.126, Dock Road, Tilbury, by Calcutta Road.
- (vi) Lay-bys on A.13 between Junction A.126 and Clockhouse Lane.
- (vii) Surface Water Drainage, Junction A.13 and C.17.
- (viii) A.13—Reconstruction by Stonehouse Lane, C.11.
- (ix) A.13—Resurfacing Bridge Approach by Back Lane.

The work includes Breaking-out and Providing New Single Reinforced Concrete Carriageway, together with Kerbing, Drainage and other ancillary works, and also the Laying of Asphalt Surfacing Materials upon existing and/or new Carriageways.

Form of Tender, Specifications and Schedules may be obtained upon application from the Engineer and Surveyor, Council Offices, Whitehall Lane, Grays, on payment of Two Guineas deposit, which will be refunded on receipt of a bona-fide Tender.

Copies of the Drawings and General Conditions of Contract may be inspected at the Engineer and Surveyor's Office during normal office hours.

Tenders, accompanied by Specifications and priced Schedules, in the envelope provided, must be delivered to the Clerk of the Council by not later than 12 Noon on TUESDAY, 20th DECEMBER, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

A. E. POOLE,  
Clerk of the Council.

Council Offices,  
Whitehall Lane,  
Grays,  
23rd November, 1960.

## WEST DEAN RURAL DISTRICT COUNCIL.

RE-ADVERTISEMENT.

LYDBROOK SEWERAGE AND SEWAGE DISPOSAL.

CONTRACT NO. 1.

TENDERS on a Fixed-price Basis, are invited from experienced public works contractors for the CONSTRUCTION of approx. 2,025 lin. yd. of 12in. to 5in. dia. IRON SEWERS, 190 lin. yd. of 9in. dia. STEEL SEWER, 6,800 lin. yd. of 9in. dia. CONCRETE and 6in. dia. GLAZED STONEWARE PIPE SEWERS, together with Concrete Tube Manholes, Sewage Pumping Station, and approx. 3,500 lin. yd. of 5in. dia. Spun-Iron Rising Main and Sewage Disposal Works, comprising Settling Tanks, Rectangular Filters, Humus Tanks, Sludge Drying Beds, Sludge Pumping Station, and other incidental works.

The General Conditions of Contract and Specification, Bills of Quantities and Form of Tender may be obtained from the Council's Consulting Engineers, MESSRS. WILLCOX, RAIKES and MARSHALL, 33 Great Charles Street, Birmingham, 5, where the Drawings may be inspected upon payment of a deposit of £5 5s. (cheque only, made payable to the Council), which will be refunded on receipt of a bona-fide Tender supported by priced Bills of Quantities, if requested, and the return of all documents.

Tenders, in the envelopes provided, should be delivered to the undersigned not later than 12 Noon on WEDNESDAY, 11th January, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

A. F. GILLO,  
Clerk to the Council.

Council Offices,  
Coleford, Glos.  
22nd November, 1960.

## CONTRACTS

## MERIONETH COUNTY COUNCIL.

TENDERS are invited for the RECONSTRUCTION and IMPROVEMENT of the CWM PRYSOR ROAD, from TRAWSFYNYDD to its junction with Route B.4391 near ARENIG. The length to be improved is about Eight Miles, with Six Small Bridges.

The works include 340,000 cu. yd. Excavation, 118,000 sq. yd. Carriageway Foundations, 100,000 sq. yd. Surfacing, together with Drainage and ancillary works.

Contract documents may be obtained from the County Surveyor, County Offices, Dolgellau, on payment of £10 deposit, and Drawings may be obtained on deposit of a further £20.

Deposits will be refunded on return of the Drawings and bona-fide Tenders not subsequently withdrawn.

Tenders should be sent in a plain sealed registered envelope marked "Cwm Prysor Road Tender," to reach the COUNTY CLERK, County Offices, Peniarth, Dolgellau, by 10 a.m. on MONDAY, 16th January, 1961.

## CHESHIRE COUNTY COUNCIL.

BIRMINGHAM-PRESTON MOTORWAY.  
CHESHIRE—CONTRACT NO. 2.

HOLMES CHAPEL INTERCHANGE (A.54) TO LANCAIRE BOUNDARY.

The Council invite TENDERS for the CONSTRUCTION of approx. 15 miles of DUAL THREE-LANE MOTORWAY, including the Diversion of Side Roads and the Construction of 36 Bridges and Three Two-level Interchanges.

Tender documents and Drawings will be available from FRIDAY, 16th December, 1960, and can be obtained from the undersigned on payment of a deposit of £50, which will only be refunded on receipt of a bona-fide Tender and the return of all documents. The Council do not bind themselves to accept the lowest or any Tender.

Tenders, in a plain sealed envelope and endorsed "Tender for Motorway Contract No. 2," must reach the Clerk of the County Council, County Hall, Chester, not later than Noon on MONDAY, 20th February, 1961.

C. G. DAY, A.M.I.C.E., M.I.Mun.E.,  
A.M.P.E.I.,  
County Surveyor.

County Surveyor's Dept.,  
Backford Hall,  
Near Chester.

## CITY OF LEEDS.

WATERWORKS DEPARTMENT.

THURSCROSS IMPOUNDING RESERVOIR SCHEME.

TENDERS are invited for the CONSTRUCTION, COMPLETION and MAINTENANCE of a CONCRETE DAM, Roads and other works connected therewith, situated at Thruscross, near Harrogate, Yorkshire.

Contract documents and General Arrangement and Detail Drawings are available for collection from the undersigned upon payment of Ten Guineas deposit (cheques payable to Leeds Corporation), returnable on receipt of bona-fide Tender and return of all Contract documents.

Tenders, accompanied by a list of names of employers for whose works the tender is being submitted, enclosed in plain sealed covers addressed to the Town Clerk and endorsed "Tender for Thruscross Dam," must be delivered at the Town Clerk's Office, Room 57, Civic Hall, Leeds, 1, not later than 12 Noon on TUESDAY, the 31st January, 1961.

KENNETH L. FORSTER, M.I.C.E.,  
General Manager and Engineer.

Waterworks Department,  
Civic Hall,  
Leeds, 1,  
25th November, 1960.

## HOLYHEAD URBAN DISTRICT COUNCIL.

WATERSIDE—SEWERAGE.

CONTRACT NO. 1.

TO CONTRACTORS.

The above-named Council invite TENDERS for the EXECUTION OF SEWERAGE WORKS, comprising Breaking-out Existing Sewers, Furnishing and Laying on the same line as the existing sewers about 450 yd. of 15in., 30in. and 36in. Cement Concrete Pipe Sewers, Manholes, Ventilators, etc.; Laying about 110 yd. of 24in. Spun-Iron Outfall Pipe into New Harbour, and the Construction of a Pumping Station and other ancillary works.

Contractors desirous of tendering are requested to send their names and addresses to D. BALFOUR AND SONS, M.I.C.E., 131 Victoria Street, Westminster, London, S.W.1, together with a cheque deposit for £10 made payable to the Holyhead Urban District Council, not later than 23rd DECEMBER, 1960, after which full particulars will be forwarded. The deposit will be returned on receipt of a bona-fide Tender and the receipt of all printed documents after the Contract has been let.

It is essential that the contractor shall have had considerable experience in similar work, and be prepared to furnish security with an approved Society for the fulfilment of the Contract.

The lowest or any Tender will not necessarily be accepted by the Council.

D. LLOYD HUGHES,  
Clerk to the Holyhead Urban District Council.

Council Offices,  
Town Hall,  
Holyhead,  
Anglesey.

## ELSTREE RURAL DISTRICT COUNCIL.

CONTRACT NO. 140.

ERECTION OF LOCK-UP GARAGES.

TENDERS are invited for the ERECTION of a total of 60 PRECAST CONCRETE LOCK-UP GARAGES on FOUR SITES at BOREHAM WOOD, and the Construction of Drains and Concrete Areas in connection therewith.

Contract documents may be obtained from MR. B. HOWELL, Engineer and Surveyor, Council Offices, Shenley Road, Boreham Wood, on receipt of a deposit of £2 2s., which will be refunded on receipt of a bona-fide Tender or on return of the documents.

Tenders must reach the undersigned not later than 12 Noon on WEDNESDAY, 21st December, 1960. The Council do not bind themselves to accept the lowest or any Tender.

A. LANCAIRE,  
Clerk of the Council.

Council Offices,  
Shenley Road,  
Boreham Wood,  
Herts.  
28th November, 1960.

## CONTRACTS

COUNTY BOROUGH OF HUDDERSFIELD.  
MAKING-UP OF FOOTWAYS.

TENDERS are invited for the MAKING-UP OF FOOTWAYS within the Borough for the period ending 31st March, 1962.

The Contract provides for the Supply and Laying of Stone or Concrete Kerbs and the Surfacing of Footways in Precast Concrete Flagging, Hot Rolled Asphalt or Tarpaving, together with ancillary works, as directed from time to time.

It is anticipated that approx. 9,000 sq. yd. of Footways will require making-up during the period of the Contract.

Forms of Tender, Specification, etc., may be obtained from A. L. PERCY, M.I.C.E., Borough Engineer and Surveyor, High Street Buildings, Huddersfield, on payment of a deposit of £2 2s., which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn.

Sealed Tenders, in the envelope provided, are to be returned to the undersigned not later than 10 a.m. on TUESDAY, 3rd January, 1961.

HARRY BANN,  
Town Clerk.

Town Hall,  
Huddersfield.

## BOROUGH OF ROMFORD.

## SIX HARD TENNIS COURTS.

TENDERS are invited for the CONSTRUCTION OF SIX HARD TENNIS COURTS in Two PARKS (King George's Field and Collier Row Recreation Ground) in Romford.

Contract documents obtainable from the Borough Engineer and Surveyor, Town Hall, Romford, on deposit of a cheque for £2 2s., returnable on receipt by the TOWN CLERK of a bona-fide Tender, in the envelope provided, by 20th DECEMBER.

## BOROUGH OF ROMFORD.

## CHAIN LINK FENCING WORKS.

TENDERS are invited for the PROVISION AND ERECTION OF about 375 lin. yd. of CHAIN LINK FENCING on CONCRETE POSTS 5ft. high, at four children's play spaces at CROSS ROAD ESTATE, COLLIER ROW, Romford.

Contract documents obtainable from the Borough Engineer and Surveyor, Town Hall, Romford, on deposit of a cheque for £2 2s., returnable on receipt by the TOWN CLERK of a bona-fide Tender, in the envelope provided, by 20th DECEMBER.

## BOROUGH OF WATFORD.

## NASCOT WOOD SEWERAGE SCHEME—STAGE II.

Public works contractors are invited to TENDER for the CONSTRUCTION OF THE FOLLOWING:

1,500 lin. yd. of Single Sewers 6in. dia. to 21in. dia. in Open Cut up to 11ft. 6in. deep.

1,400 lin. yd. of Dual Sewers 9in. dia. to 24in. dia. in Open Cut up to 18ft. 6in. deep.

315 lin. yd. of Dual Sewers 9in. dia. to 30in. dia. in Heading up to 23ft. deep.

37 Single Manholes; together with Gullies, House Connections and other ancillary works.

Applications for documents, accompanied by a deposit of £2 2s., which will be returned on receipt of a bona-fide Tender not subsequently withdrawn, should be made to MR. F. C. SAGE, Borough Engineer and Surveyor, Town Hall, Watford.

Tenders must be delivered to the undersigned, in the envelope provided, not later than 2 p.m. on MONDAY, 9th January, 1961.

GORDON H. HALL,  
Town Clerk.

Town Hall,  
Watford, Herts.

## BOROUGH OF HESTON AND ISLEWORTH.

## NEW SANITARY ACCOMMODATION.

## ISLEWORTH TOWN INFANTS' SCHOOL.

TENDERS are invited for ALTERATION WORKS TO SANITARY FACILITIES at the ABOVE SCHOOL.

Firms wishing to tender should make application to the Borough Engineer and Surveyor, 88 Lampton Road, Hounslow, Middlesex.

Tender documents will be forwarded on or about 12th December, 1960.

Tenders must be sealed in the envelope provided and received by me not later than 10 a.m. on 4th JANUARY, 1961.

D. MATHIESON,  
Town Clerk.

Town Hall,  
Hounslow, Middlesex.

## CITY OF WORCESTER.

## NEWTOWN ROAD IMPROVEMENT.

(Sherriff Street to Ronswood Hill.)

FIXED-RATE TENDERS are invited for the ABOVE WORKS, which comprise Demolition of Single-storey Garage, Widening, Reconstruction, and Drainage for a length of 300 lin. yd. of 40ft. wide road.

Documents obtainable from the City Engineer and Surveyor, 22 Bridge Street, Worcester, upon payment of a Two Guinea deposit which will be returned on receipt of a bona-fide Tender.

Tenders, in envelope provided, to be posted to reach the undersigned not later than TUESDAY, the 20th December, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

BERTRAM WEBSTER,  
Town Clerk.

The Guildhall,  
Worcester.

## CITY OF WORCESTER.

## BLACKPOLE ROAD IMPROVEMENT.

(Field Road to Bilford Road.)

FIXED-RATE TENDERS are invited for the ABOVE WORKS, which comprise Widening, Reconstruction, and Drainage for a length of 350 lin. yd. of 50ft. wide road.

Documents obtainable from the City Engineer and Surveyor, 22 Bridge Street, Worcester, upon payment of a Two Guinea deposit which will be returned on receipt of a bona-fide Tender.

Tenders, in envelope provided, to be posted to reach the undersigned not later than TUESDAY, the 20th December, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

BERTRAM WEBSTER,  
Town Clerk.

The Guildhall,  
Worcester.

## CONTRACTS

## COUNTY BOROUGH OF DUDLEY.

## HOCKLEY LANE IMPROVEMENT—TENDERS.

Applications to TENDER are invited for the ABOVE CONTRACT (consisting of 1,000 lin. yd. 9in. dia. Sewer, 5,000 sq. yd. of Bituminous Macadam Road Surfacing and Wetmix Base, 1,600 lin. yd. Concrete Kerb and Channel, 2,000 sq. yd. of Bituminous Macadam Footpaths and ancillary works).

Applications must be submitted to the Borough Engineer, The Council House, Dudley, Worcestershire, together with a deposit of £5 5s., which will be returned upon receipt of a bona-fide Tender, not subsequently withdrawn, and the return of all documents.

The latest date for the receipt of applications is SATURDAY, 10th December, 1960. Tender documents will be provided as soon as possible after that date.

P. D. WADSWORTH,  
Town Clerk.

The Council House,  
Dudley,  
Worcestershire,  
25th November, 1960.

## COUNTY BOROUGH OF ROTHERHAM.

## ST. ANN'S ROAD RECONSTRUCTION.

TENDERS are invited from experienced public works contractors for the RECONSTRUCTION OF ST. ANN'S ROAD, from Fitzwilliam Road to Effingham Street, a length of approx. 400 lin. yd.

The works consist of Taking-up existing Kerbs and Flags to Footpaths, Providing and Laying New Kerbs and Flags to New Levels, Excavating and Providing and Laying Granular Sub-base, Lean-mix Concrete Foundation and Bituminous Surfacing to Carriageway.

Copies of the General Conditions of Contract, Specification, Bills of Quantities, Form of Tender and Drawings may be obtained from E. J. MANSON, Eng., A.M.I.C.E., Borough Engineer, Municipal Offices, Howard Street, Rotherham, upon payment of a deposit of £2 2s., which will be returned upon receipt of a bona-fide Tender.

Tenders must be delivered to the undersigned, in the envelope provided, not later than 10 a.m. on MONDAY, 19th December, 1960.

JOHN S. WALL,  
Town Clerk.

Municipal Offices,  
Howard Street,  
Rotherham,  
Yorks.

## BOROUGH OF BILSTON.

## CONTRACT NO. 238.

## CONSTRUCTION OF ROAD OFF LOXDAL STREET.

TENDERS are invited from public works contractors for the ABOVE CONTRACT, which consists of 1,150 super. yd. of Tarmacadam Carriageway on a Premixed Waterbound Macadam Base and Surfaced with Cold Asphalt, 340 lin. yd. of Precast Concrete Kerb and Channel, together with 330 lin. yd. of 9in. dia. Sewer and ancillary work.

Drawings may be inspected at the Office of the Borough Engineer, Municipal Buildings, Hall Street, Bilston, Staffs., from whom tender documents may be obtained upon payment of a deposit of Two Guineas, which sum will be refunded upon receipt of a bona-fide Tender, not subsequently withdrawn.

Tenders, in plain sealed envelopes, endorsed "Contract No. 238—Road off Loxdale Street," are to be delivered to the undersigned not later than 12 Noon on WEDNESDAY, the 14th December, 1960.

The Council do not bind itself to accept the lowest or any Tender.

A. M. WILLIAMS,  
Town Clerk.

Town Hall,  
Bilston, Staffs.,  
November, 1960.

## HAYES AND HARLINGTON URBAN DISTRICT COUNCIL.

## FROGMORE FARM ESTATE, HAYES, MIDDLESEX.

## 22 AGED PERSONS' BUNGALOWS.

## 74 TWO-STORY HOUSES.

## 95 THREE-STORY FLATS.

## 36 FOUR-STORY MAISONNETTES.

## 176 LOCK-UP GARAGES.

Building contractors desirous of submitting a Fixed-price TENDER for the ABOVE SCHEME of 227 Dwellings are invited to submit their names, together with details of experience, plant, etc., to the Engineer and Surveyor, Town Hall, Hayes, Middlesex, not later than 12 Noon on MONDAY, 2nd January, 1961.

From the names submitted, a panel of contractors will be selected to whom Tender documents will be sent.

The closing date for the receipt of Tenders will be notified, but it is thought this will be towards the end of March, 1961.

The Council does not bind itself to accept the lowest or any Tender, and security will be required for the due performance of the Contract.

GEORGE HOOPER,  
Clerk and Solicitor of the Council.

Town Hall,  
Hayes, Middx.,  
1st December, 1960.

## THE URBAN DISTRICT COUNCIL OF SEVENOAKS.

## TENDERS FOR SUPPLIES.

The Urban District Council of Sevenoaks invites TENDERS for the UNMENTIONED SUPPLIES during the year ending 31st March, 1962:—

Slag Tarmacadam and Slag Dust.  
Bituminous Macadam (with Crushed Rock or Slag Aggregate).

Tarmacadam other than Slag Tarmacadam.  
Fine Cold Asphalt and Coarse Cold Asphalt.  
Refined Tar.

Cement.  
Sand.  
Granite Chippings.  
Granite Concrete Kerb (Hydraulically Pressed).

Granite Concrete Paving Slabs (Hydraulically Pressed).  
Crushed and Natural Shingle.  
Lorry Hire.

Salt for Snow Clearing Purposes.

Forms of Tender may be obtained from the Engineer and Surveyor, Council Offices, Argyle Road, Sevenoaks, Kent.

Sealed Tenders, endorsed "Annual Tenders," are to be delivered to the undersigned not later than 12 Noon on MONDAY, 2nd January, 1961.

The Council do not bind itself to accept the lowest or any Tender.

A. F. E. DAVIS,  
Clerk of the Council.

Council Offices,  
Argyle Road,  
Sevenoaks, Kent,  
November, 1960.

## CONTRACTS

## MIDDLESBROUGH COUNTY BOROUGH COUNCIL.

## EASTERSIDE GROUP 29—30 HOUSES, 4 FLATS AND 1 ESTATE OFFICE.

## EASTERSIDE GROUP 26—21 HOUSES, 6 FLATS AND 12 GARAGES.

## EASTERSIDE GROUP 30—28 HOUSES, 6 FLATS AND 22 GARAGES.

## TENDERS are invited for the ERECTION OF the ABOVE GROUPS, to be let either as one Contract or separately.

Lists of Quantities from the Borough Engineer; deposit Two Guineas.

TENDERS to be received by the TOWN CLERK on or before MONDAY, 9th January, 1961.

## MIDDLESBROUGH COUNTY BOROUGH COUNCIL.

## ADVANCE DIRECTION TRAFFIC SIGNS.

## TENDERS are invited for the SUPPLY OF ADVANCE DIRECTION TRAFFIC SIGNS.

Specification, Tender documents and Plans may be obtained, on application, from the Borough Engineer, Municipal Buildings, Middlesbrough.

Tenders, in plain sealed envelopes endorsed "Advance Direction Signs," must be delivered to the TOWN CLERK on or before TUESDAY, 13th December, 1960.

## BOROUGH OF HARROW.

## SCHOOLS MAINTENANCE.

## LIST OF PAINTING CONTRACTORS.

Applications are invited from painting contractors who wish to TENDER in the period commencing January, 1961, for WORKS in the FOLLOWING CATEGORIES:—

(a) Internal Decoration of Schools (primarily during Easter and Summer vacation periods).  
(b) External Decoration of Schools (May to September).

The contracts will vary from £200-£10,000, and applicants must state the categories in which they are interested and the total value of work which they can be held to complete under contract within the period stated.

The Council reserves the right to reject, without giving any reason, any application in any category. Applications, stating category of work (a) or (b), must be received by me not later than Noon on FRIDAY, 16th December, 1960. Applications should be accompanied by full particulars of similar works recently carried out. Details of labour resources must also be given.

Applicants are asked to confirm, in writing, that in tendering they will not follow the restrictive practices criticised by the Monopolies Commission. Tenders will be invited from contractors whose names are placed on our official lists prepared from the applications received, such lists being periodically reviewable.

DAVID PRITCHARD,  
Town Clerk.

Town Clerk's Office,  
Harrow Weald Lodge,  
92 Uxbridge Road,  
Harrow.

## BOROUGH OF ILKESTON.

## ROAD MATERIALS, ETC., YEAR 1961-62.

TENDERS are invited for the SUPPLY OF the UNMENTIONED MATERIALS (including the Laying of Coated Macadam, etc., by machine) for the year ending 31st March, 1962:—

- (1) Broken Granite.
- (2) Furnace Slag.
- (3) Tarmacadam.
- (4) Bitumen Macadam.
- (5) Mastic Asphalt.
- (6) Rolled Asphalt.
- (7) Cold Asphalt.
- (8) Asphalt Base Course.
- (9) Precast Leicestershire Granite Chippings.
- (10) Gravel.
- (11) Concrete Kerbs.
- (12) Concrete Slabs.
- (13) Concrete Block Channel.
- (14) Sand.
- (15) Refined Tar, Bitumen, Bituminous Compounds and Cold Emulsions.
- (16) Cement.
- (17) Motor Spirit.
- (18) Fuel Oil (Deriv.).
- (19) Gas Oil.

Full particulars, Specifications and Forms of Tender may be obtained on application to the Borough Engineer and Surveyor, Town Hall, Ilkeston.

Tenders, enclosed in plain sealed envelopes, addressed to the undersigned, endorsed "Tenders for Road Materials, etc., but not bearing any name or mark indicating the sender, must be received not later than 12 Noon on FRIDAY, 13th January, 1961.

The Council does not bind itself to accept the lowest or any Tender.

J. YATES,  
Town Clerk.

Town Hall,  
Ilkeston,  
23rd November, 1960.

## CHARD RURAL DISTRICT COUNCIL.

## SEAVINGTONS, LOPEN, AND HINTON ST. GEORGE SEWERAGE AND SEWAGE DISPOSAL.

FIXED-PRICE TENDERS invited from contractors experienced in SIMILAR WORK for Laying of about 7,500 lin. yd. of 9in. and 6in. dia. Sewers; 3,400 lin. yd. of 4in. and 5in. Rising Mains; together with Manholes and other ancillary work; and Construction of Disposal Works, comprising Tanks, Filters, Drying beds and other appurtenant works; and Pumping Stations at Lopen and Hinton.

Tender documents obtainable from, and Plans inspected by appointment at, Offices of Council's Engineers, MESSRS. HARVEY MCGILL AND HAYES, 38 Market Place, Chippenham, Wiltshire.

Applications to be accompanied by cheque for £5 payable to Chard Rural District Council and, in case of contractors who have not previously carried out work for the Council or under direction of their Consulting Engineers, by particulars of similar work done, names and addresses of Engineers concerned. Deposit returnable upon receipt of bona-fide Tender not subsequently withdrawn, and return of all documents.

Tenders to be received by the undersigned not later than Noon on 16th JANUARY, 1961, in envelope endorsed "Seavingtons, etc., Sewage and Sewage Disposal."

The Council do not bind themselves to accept the lowest or any Tender.

LAWRENCE J. HARTLEY,  
Clerk of the Council.

Council Offices,  
Snowdon House,  
Chard, Som.

## CONTRACTS

**ZETLAND COUNTY COUNCIL.**  
WALLS AND DISTRICT WATER SCHEME.

The County Council of Zetland invites TENDERS for the WORK comprised in the CONSTRUCTION of an INTAKE at LOCH OF LUNGA WATER, together with a Pumphouse, Settlement Tanks, Filters, Storage Tanks, and the Laying and jointing of 24 miles of Asbestos-cement Piping ranging from 12 in. to 24 in. in diameter.

Plans may be seen, and copies of the Specification and Schedules of Quantities obtained at the Offices of the Consulting Engineers, MESSRS. BLYTH AND BLYTH, MM.I.C.E., 135 George Street, Edinburgh, 2, and 28 Church Street, Inverness, on and after MONDAY, 5th December, 1960, on payment to them of a deposit of £5 5s., returnable on receipt of a bona-fide Tender or the return of the Contract documents within three days of their issue.

An Engineer will meet contractors on the site on Wednesday, 14th December, to point out the extent of the work.

Sealed Tenders, marked on the outside "Contract for Walls Water Scheme," must be lodged with the undersigned not later than THURSDAY, 12th January, 1961.

The Council is not bound to accept the lowest or any Tender.

J. N. SINCLAIR,  
County Clerk.

**BOROUGH OF RAWTENSTALL.**NEW GREENHOUSES—WHITAKER PARK,  
HASLINGDEN ROAD, RAWTENSTALL.

TENDERS are invited for the ERECTION OF NEW GREENHOUSES.

Copies of the Plans, Specification and Form of Tender may be obtained from the Borough Engineer and Surveyor, Town Hall, Rawtenstall, on payment of Two Guineas, which will be returned on receipt of a bona-fide Tender (not subsequently withdrawn) and the return of all documents as required.

The General Conditions of Contract may be inspected at the Borough Surveyor's Office during normal working hours.

Tenders, on the form supplied, must be delivered to the undersigned not later than Noon on MONDAY, 9th January, 1961, in the envelope provided.

The Council do not bind themselves to accept the lowest or any Tender.

COLIN C. CAMPBELL,  
Town Clerk.

Town Hall,  
Rawtenstall,  
Rossendale.

**BANSTEAD URBAN DISTRICT COUNCIL.**

## ANNUAL TENDERS, 1961-62.

TENDERS are invited for the SUPPLY of the FOLLOWING MATERIALS and EXECUTION OF WORKS for the year ending 31st March, 1962, viz.:

- (1) Asphalt, Tarmacadam and Surfacing Materials: Supply, also Supply and Lay.
- (2) Distilled Tar and Bituminous Emulsion.
- (3) Surfacing of Carriageways with Filled Bitumen and Dry Stone Chippings.
- (4) Shingle, Ballast and Grit.
- (5) Concrete Kerbs, Channels, Quadrants, and Artificial Stone Paving.
- (6) Petrol, Diesel, Gas and Light Fuel Oils.
- (7) Granite and Limestone Chippings, etc.
- (8) Ashes.
- (9) Coke.
- (10) Cleaning Surface Water Soakaways.
- (11) Cutting Grass Verges.

Forms of Tender, Conditions and Specifications can be obtained on application to Mr. H. CARMICHAEL, M.I.Mun.E., L.R.I.B.A., Engineer and Surveyor, and completed Tenders are to be delivered to the undersigned, in the plain sealed envelopes provided, endorsed "Annual Tenders," not later than MONDAY, 9th January, 1961.

The Council do not bind themselves necessarily to accept the lowest or any Tender, and reserve the right to accept any Tender in whole or in part.

F. L. SHAW,  
Clerk of the Council.

The Council House,  
Brighton Road,  
Banstead, Surrey,  
November, 1960.

**CARSHALTON URBAN DISTRICT COUNCIL.**RECONSTRUCTION OF NON-ATTENTION  
HARD TENNIS COURT—THE GROVE.

TENDERS are invited from experienced contractors for the RECONSTRUCTION of a NON-ATTENTION HARD TENNIS COURT in THE GROVE, Carshalton. Specification and Form of Tender may be obtained from the Engineer and Surveyor, Stone Court, The Grove, Carshalton, Surrey.

No Tender will be accepted except in a plain sealed envelope addressed to the Chairman of the Council at the undermentioned Offices, and delivered not later than 12 Noon on MONDAY, 19th December, 1960.

The envelope must be endorsed "Non-Attention Hard Tennis Court," and must not bear any name or mark indicating the sender.

The Council do not bind themselves to accept the lowest or any Tender.

C. H. DURRANT,  
Clerk of the Council.

District Council Offices,  
The Grove,  
Carshalton,  
Surrey.

**EVESHAM RURAL DISTRICT COUNCIL.**

## HARVINGTON SEWERAGE SCHEME.

TENDERS are invited, on a Fixed-price Basis, for LAYING approx. 1,000 yds. of 6 in. and 9 in. SOIL SEWER, with necessary Manholes and other Incidental works, and for the Construction of a Sewage Disposal Works.

Form of Tender, Specification, Bills of Quantities and Plans may be obtained from the Engineer and Surveyor, Lansdowne, Port Street, Evesham, on payment of a deposit of £5 5s., which deposit will be refunded on receipt of a bona-fide Tender.

Tenders, in a plain sealed envelope endorsed "Harvington Sewerage Scheme," to be delivered to the undersigned by 9 a.m. on MONDAY, 2nd January, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

C. H. GARDINER,  
Clerk to the Council.

Lansdowne,  
Port Street,  
Evesham,  
26th November, 1960.

## CONTRACTS

**NORTHAMPTONSHIRE COUNTY COUNCIL.**

## ROADS AND BRIDGES COMMITTEE.

## ANNUAL TENDERS.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED MATERIALS and SERVICES for 12 months commencing 1st April, 1961:—

- (1) Dry Broken Stone, Slag, and Tar Coated Chippings (for Surface Dressing).
- (2) Ready Mixed Concrete.
- (3) Washed Gravel, Sand and Pit Gravel.
- (4) Granite Setts.
- (5) Precast Concrete Kerbs and Slabs.
- (6) Road Tar.
- (7) Tar and Bitumen Compounds.
- (8) Bituminous Emulsions.
- (9) Rapid Hardening and Portland Cement.
- (10) Glazed Socket Drain Pipes and Fittings and Concrete Tubes.
- (11) Lubricating Oils and Grease.
- (12) Petrol, Derv, Gas Oil and Paraffin.
- (13) Steam Coal and Gas Coke.
- (14) Cast-iron Gully Grates and Frames, Offset Kerbs, Manhole Covers and Frames.
- (15) Mechanical Haulage.
- (16) Tools.
- (17) Traffic Signs and Posts.
- (18) Tarrad and Bituminous Macadam and Fine Cold Asphalt, Supply only and/or Supply and Lay.
- (19) Hot Rolled Asphalt, Supply and Lay.
- (20) Plastic White Lines, Supply and Lay.
- (21) Plastic White Lines, Supply only.
- (22) Reflecting Roadstuds, Laying of.
- (23) Heating and Planning.
- (24) Gully Emptying.
- (25) Timber and Chain Link Fencing, Supply and/or Supply and Erection.
- (26) Quickthorn Hedges, Supply and Planting.
- (27) Hot Surface Dressing of Carriageways and Footpaths.
- (28a) Hot Surface Dressing of Carriageways with Filled Bitumen and Heated Chippings.
- (28b) Cold Surface Dressing of Carriageways.

Further particulars, Specifications and Forms of Tender may be obtained from the County Surveyor, County Offices, Guildhall Road, Northampton, and must be submitted to the undersigned by not later than 9th January, 1961.

J. ALAN TURNER,  
Clerk of the County Council.

County Hall,  
Northampton,  
December, 1960.

**COUNTY BOROUGH OF GT. YARMOUTH.**CONSTRUCTION OF SEWER AND PUMPING  
STATION—SOUTH DENES CAMP.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of approx. 470 lin. yd. of GLAZED STONEWARE SEWER and Underground Sumps and Building for a Pumping Station at South Denes, Great Yarmouth.

Conditions of Contract may be inspected at, and the Drawings, Form of Tender, Bills of Quantities and Specification obtained from, the Borough Engineer, Town Hall, Great Yarmouth, on payment of a deposit of £4 4s., returnable on receipt of a bona-fide Tender.

Tenders, in a plain sealed envelope endorsed "Construction of Sewer and Pumping Station—South Denes," must reach me not later than 30th DECEMBER, 1960.

The Council does not bind itself to accept the lowest or any Tender.

FARRA CONWAY,  
Town Clerk.

Town Hall,  
Great Yarmouth.

**CITY AND COUNTY OF NEWCASTLE UPON TYNE.**

The HOUSING COMMITTEE of the CORPORATION are prepared to receive TENDERS from specialist firms for the SUPPLY and INSTALLATION of TWO AUTOMATIC PASSENGER LIFTS in each of Two 15-storey Blocks of Flats proposed to be erected on the LONGBENTON ESTATE, Unit 4.

Specification, Form of Tender and Drawings may be obtained on application, in writing, to the City Architect, 18 Cloth Market, Newcastle upon Tyne, 1, where Conditions of Contract may be seen. Sealed Tenders must reach the City Architect not later than 10 a.m. on TUESDAY, the 17th January, 1961.

No Tender will be received except in the official envelope provided, which must not bear any name or mark indicating the sender.

The Committee do not bind themselves to accept the lowest or any Tender.

JOHN ATKINSON,  
Town Clerk.

Town Hall,  
Newcastle upon Tyne, 1,  
29th November, 1960.

**CITY AND COUNTY OF BRISTOL.**

## RECONSTRUCTION OF TENNIS COURTS.

TENDERS are invited for RECONSTRUCTION of TWO TENNIS COURTS in One Enclosure, 1,600 sq. yd. in area, situated at ST. ANNE'S PARK.

Experienced firms may obtain copies of Tender documents from CITY ENGINEER AND PLANNING OFFICER, Cabot House, Deansway Road, Bristol, 1.

Tenders, endorsed "Reconstruction of Tennis Courts—St. Anne's Park," but bearing no mark indicating sender, must be delivered by 3rd JANUARY, 1961.

**OUNDELE URBAN DISTRICT COUNCIL.**

## DEMOLITION OF UNFIT HOUSES.

TENDERS are invited for the DEMOLITION of the FOLLOWING HOUSES and OUTBUILDINGS appurtenant to:—

- (a) Nos. 1-24 Inkerman Yard and 61 West Street, Oundle (25 Houses).
- (b) Nos. 57, 59 West Street, Oundle.
- (c) Nos. 66 and 68 Benefield Road (formerly occupied as one dwelling house).
- (d) Nos. 5, 6, 7 and 8 St. Osyth's Lane, Oundle.

Contractors wishing to tender may obtain details and General Conditions of Contract from Mr. R. E. T. CHINNEY, F.F.S., Engineer and Surveyor, at the Council Offices, address given below.

Sealed Tenders, endorsed "Demolition Contract," to be addressed and delivered to the undersigned not later than 10 a.m. on MONDAY, 19th December, 1960.

J. FORD,  
Clerk of the Council.

Council Offices,  
6 North Street,  
Oundle,  
Near Peterborough,  
Northants.

## CONTRACTS

**BUCKS. COUNTY COUNCIL.**

## TRUNK ROAD, A.4.

SLOUGH-MAIDENHEAD BY-PASS  
(BUCKS. SECTION).

## CONTRACT NO. 2.

TENDERS are invited for the CONSTRUCTION of the SECOND (or Eastern) SECTION of the ABOVE BY-PASS between the new Huntercombe Fly-over and the A.4 at Langley, adjacent to the "William IV" Public House.

The work will comprise some 5½ miles of motorway, with Spur Roads, Side-road Diversions and 10 Major Bridges, together with ancillary works including Site Clearance, Fencing, Drainage, Earthworks, Culverts, etc.

Contract documents and Drawings may be inspected at the Office of the County Surveyor, County Offices, Walton Street, Aylesbury, on payment of £50 deposit, which will be returnable on receipt of a bona-fide Tender.

Relevant documents and Drawings may be inspected at the Office of the County Surveyor, County Offices, Aylesbury, during normal working hours, but not on Saturdays.

Persons tendering may be required to furnish evidence as to experience and ability in the execution of works of this nature.

The Council do not bind themselves to accept the lowest or any Tender, and any acceptance will be subject to approval by the Ministry of Transport. Tenders should be sealed in the envelopes provided, endorsed "Slough-Maidenhead By-pass—Contract No. 2," and returned to me not later than Noon on TUESDAY, 7th February, 1961.

R. E. MILLARD,  
Clerk of the County Council.

County Hall,  
Aylesbury,  
December, 1960.

**SOUTHGATE BOROUGH COUNCIL.**

## WIDENING OF WORLDS END LANE, N.21.

TENDERS are invited from specialist contractors for the CONSTRUCTION of approx. 140 sq. yd. of HARDCORE CARRIAGEWAY, 125 sq. yd. of Concrete Footways, 900 sq. yd. of Bitumen Macadam Surfacing, together with ancillary Kerb and Drainage Works.

Contractors wishing to tender should apply to the Borough Engineer and Surveyor for a copy of the relevant documents.

Sealed Tenders must be received by the undersigned not later than 9 a.m. on MONDAY, 2nd January, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

GORDON H. TAYLOR,  
Town Clerk.

Town Hall,  
Palmer's Green, N.13.

**CITY OF WAKEFIELD.**EXTENSION OF BRUNSWICK STREET TO  
PARK LODGE LANE.

## ROADWORKS AND DRAINAGE.

TENDERS are invited on a Fixed-price Basis for the CONSTRUCTION of the PROPOSED EXTENSION to the ABOVE STREET including Sewer Construction. Drawings may be inspected at the Office of the City Engineer, Town Hall, Wakefield, from whom Bills of Materials, Specifications and Form of Tender may be obtained.

Tenders must be returned to the undersigned by MONDAY, 9th January, 1961.

W. S. DES FORGES,  
Town Clerk.

Town Hall,  
Wakefield.

**BRIDGEND URBAN DISTRICT COUNCIL.**

## BRACKLA NORTH HOUSING SITE.

The Bridgend Urban District Council invites TENDERS on a Fixed-price Basis from competent building contractors, for the ERECTION of THREE BLOCKS of FLATS for Aged Persons. Each Block of Flats contains Eight One- and Two-bedroom Flats. All advance preparations are completed, and roads serve the site.

Specification and Drawings may be obtained from the Engineer and Surveyor to the Council, Council Offices, Glan-Ogwr, Bridgend, on payment of a deposit of £3 3s., which will be returned on receipt of a bona-fide Tender.

Tenders, in plain sealed envelopes endorsed "Aged Persons' Flats," should be returned to the undersigned not later than 12 Noon on SATURDAY, 31st December, 1960.

The Council does not bind itself to accept the lowest or any Tender.

JOHN S. BROAD,  
Clerk of the Council.

Council Offices,  
Glan-Ogwr,  
Bridgend, Glam.,  
29th November, 1960.

**EAST GRINSTEAD URBAN DISTRICT COUNCIL.**

## ANNUAL TENDERS FOR SUPPLIES AND SERVICES

FIXED-PRICE TENDERS are invited for the UNDERMENTIONED covering the financial year commencing 1st April, 1961:—

- (1) Shingle, Sand, Grit and Ashes.
- (2) Portland Cement.
- (3) Scavenger Brooms.
- (4) Boiler Suits, Bib-and-Brace Overalls, Jacket and Trouser Suits, Waterproof Clothing, Gloves and Rubber Boots.
- (5) Coke.
- (6) Petrol, Paraffin, Diesel and Vaporising Oil and Domestic Fuel Oil.
- (7) Dustbins.
- (8) Surface Dressing—Carriageways.
- (9) Limestone Chippings.

Forms of Tender may be obtained on application to the Surveyor to the Council at the undermentioned address, and applications, stating reference numbers of items for which forms are required, must be accompanied by a stamped addressed foolscap envelope.

No Tender will be received unless it is sent in a plain sealed envelope, without any name or mark indicating the sender, endorsed in the top left-hand corner, "Tender for . . . " and is delivered to me, the undersigned, by not later than First Post on WEDNESDAY, 28th December, 1960.

The Council do not bind itself to accept the lowest or any Tender.

H. C. IONES,  
Clerk of the Council.

Council Offices,  
East Court,  
East Grinstead,  
Sussex.



## CONTRACTS

COUNTY BOROUGH OF BURNLEY.  
PARKER LANE, CROFT STREET IMPROVEMENT.

TENDERS are invited from public works contractors for the CARRYING OUT OF ROAD and FOOTPATH IMPROVEMENT WORKS in PARKER LANE, RED LION STREET and BOOT STREET, Burnley.

Copies of the Special Conditions of Contract, Specification, Bill of Quantities and Form of Tender may be obtained on application to the Borough Engineer and Surveyor, 22/24 Nicholas Street, Burnley, on payment of a deposit of One Guinea, which will be returned on receipt of a bona-fide Tender or the return of all documents supplied.

General Conditions of Contract and Drawings may be inspected at the above Office during normal office hours.

Tenders must be returned to the undersigned not later than 9 a.m. on 6th JANUARY, 1961.

The Council does not bind itself to accept the lowest or any Tender.

## Borough of Gosport.

## TENDERS FOR MAKING-UP SIX PRIVATE STREETS.

TENDERS are invited for the ABOVE WORKS, the approx. quantities of which are: 1,800 lin. yd. 6in.-15in. Surface Water Sewer; 2,500 lin. yd. Kerb; 3,250 sq. yd. Asphalt Footways; 5,000 sq. yd. Bitumen Macadam Carriageway; 3,000 sq. yd. Turfing.

Application for Tender documents should be made, with a £2 2s. deposit, to the Borough Engineer, Town Hall, Trinity Green, Gosport. The deposit will be refunded on receipt of a bona-fide Tender and/or the return of all documents.

Completed Tender forms should be addressed to the Town Clerk, Town Hall, Gosport, in a plain sealed envelope bearing neither name nor mark to indicate the sender, but endorsed "Tender for Private Street Works." The priced Bills of Quantities should also be forwarded to the Town Clerk, but in a completely separate container which must bear the name of the contractor and be endorsed "Priced Bills of Quantities—Private Street Works."

Both envelopes must be received by the Town Clerk not later than First Post on the 5th JANUARY, 1961. The Corporation do not bind themselves to accept the lowest or any Tender.

EDWARD ADDENBROOKE,

Town Hall,  
Gosport.

## CITY OF CARDIFF.

## CITY SURVEYOR'S DEPARTMENT.

## LONDON-FISHGUARD TRUNK ROAD—CARDIFF INNER BY-PASS.

FIXED-PRICE TENDERS are invited for the PRELIMINARY SOIL SURVEY for CARDIFF INNER BY-PASS, including 46 Boreholes, Sampling, Testing, and Provision of a Full Report.

Conditions of Tender, Specification, Bill of Quantities and Drawings may be obtained from the City Surveyor, at whose Office Drawings and Conditions of Contract may be inspected, and to whom application should be made, accompanied by a deposit of the sum of £2 2s. on 30th December, 1960.

The deposit will be refunded on receipt of a bona-fide Tender or the return of the Contract documents by the closing date.

Tenders will not be considered unless enclosed in a plain sealed envelope endorsed "Tender for Preliminary Soil Survey—Cardiff Inner By-pass," addressed to the undersigned at the City Hall, Cardiff, and sent by Registered Post so as to be received not later than FRIDAY, the 30th December, 1960.

The envelope must not bear the name of, or any mark indicating the identity of, the tenderer.

The Council does not bind itself to accept the lowest or any Tender.

S. TAPPER-JONES,

City Hall,  
Cardiff.

23rd November, 1960.

## STROUD URBAN DISTRICT COUNCIL.

## TO DEMOLITION CONTRACTORS.

FIXED-PRICE TENDERS are invited for the DEMOLITION AND CLEARANCE OF CERTAIN BUILDINGS in: (a) the SUMMER STREET-BISLEY OLD ROAD AREA; and (b) CHURCH STREET.

Further particulars and Tender documents can be obtained from the Engineer and Surveyor to the Council.

Tenders shall reach the undersigned not later than 10 a.m. on SATURDAY, 17th JANUARY, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

H. S. GIBBONS,

Council Chambers,  
High Street,  
Stroud, Glos.

## SOWERBY BRIDGE URBAN DISTRICT COUNCIL.

## LOADER.

TENDERS are invited for the SUPPLY and DELIVERY of a LOADING SHOVEL and REAR-MOUNTED TRENCHER.

Further particulars from the Engineer and Surveyor, Beech Road, Sowerby Bridge.

Tenders to reach the undersigned not later than MONDAY, the 12th December, 1960.

ALFRED WOMERSLEY,

Allan House,  
Sowerby Bridge.

## ILKLEY URBAN DISTRICT COUNCIL.

## IMPROVEMENTS—ILKLEY SEWAGE WORKS.

TENDERS are invited for IMPROVEMENTS to the ILKLEY SEWAGE DISPOSAL WORKS, including part Screening Chamber and Surface Water Outfall.

Conditions of Contract and Plans of the Works may be inspected at, and Specification, Bills of Quantities and Form of Tender obtained from, the Office of the Engineer and Surveyor, Chantry Drive, Ilkley.

Tenders, in plain sealed envelopes endorsed "Ilkley Sewage Works," to be delivered to the undersigned by 31st DECEMBER, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

B. E. TOWNEND,

Town Hall,  
Ilkley.

29th November, 1960.

## CONTRACTS

BOROUGH OF HARROGATE.  
SURFACING—PARLIAMENT STREET.

The HARROGATE CORPORATION invites TENDERS for the SUPPLY and LAYING of approx. 2,700 sq. yd. of HOT ROLLED ASPHALT SURFACING, Two Course Construction, in connection with the ABOVE.

Specifications and Forms of Tender may be obtained from the undersigned.

Tenders must be received not later than 9 a.m. on WEDNESDAY, 28th December, 1960.

The lowest or any Tender will not necessarily be accepted.

C. E. FELLOWS,

Municipal Offices,  
Harrogate.

28th November, 1960.

CITY AND COUNTY OF NEWCASTLE UPON TYNE.  
EXTENSION TO REINFORCED CONCRETE TRANSFER LOADING PLATFORM.

The CLEANSING COMMITTEE of the CITY COUNCIL is prepared to receive TENDERS for the CONSTRUCTION and MAINTENANCE, at its BENWELL DEPOT, of an EXTENSION to the LOADING PLATFORM, approx. 110ft. x 40ft., supported on Columns and with Garage Accommodation beneath, together with a Reinforced concrete Retaining Wall on Piled Foundations, and ancillary works.

Bills of Quantities and Form of Tender may be obtained, and the Drawings inspected at the Office of the City Engineer, Town Hall, Newcastle upon Tyne, to whom sealed Tenders, enclosed in the envelope provided, are to be delivered not later than 10 a.m. on FRIDAY, 13th January, 1961.

No Tender will be considered unless it is enclosed in the official envelope provided for that purpose, and such envelope must not bear any name or mark indicating the sender.

The Committee does not bind itself to accept the lowest or any Tender.

JOHN ATKINSON,

Town Hall,  
Newcastle upon Tyne.

## IRLAM URBAN DISTRICT COUNCIL.

## ROADS AND SEWERS.

TENDERS are invited for the ABOVE WORK at NEW MOSS ROAD, Cadishead.

Conditions of Contract may be seen, and Plans, Specifications, Bills of Quantities and Form of Tender obtained from the Engineer and Surveyor, Council Offices, Irlam, Manchester, upon payment of One Guinea, returnable upon receipt of a bona-fide Tender and the return of all documents.

Sealed Tenders, in the envelope provided, must reach the CLERK OF THE COUNCIL, Council Offices, Irlam, not later than SATURDAY, 14th January, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

## STAINES URBAN DISTRICT COUNCIL.

## WORPLE ROAD RECONSTRUCTION BETWEEN STAINES ROAD AND FLORENCE GARDENS.

FIXED-PRICE TENDERS are invited for the ABOVE WORKS and Laying of a Surface Water Sewer in part of Staines Road.

The works comprise the following approximate quantities plus ancillary works: 638 lin. yd. 9in.-15in. dia. Sewers; 1,304 cu. yd. Excavation; 2,650 sq. yd. Dry Lean Concrete and Asphalt-surfaced Carriageway; 588 lin. yd. Concrete Kerb; 1,170 sq. yd. Footway; and 1,130 sq. yd. Grass Verges.

Specification, Bills of Quantities, Form of Tender and Plans may be obtained from the Engineer and Surveyor, 240 London Road, Staines, upon payment of £2 2s. deposit, which will be returned upon receipt of a bona-fide Tender not subsequently withdrawn, together with the Specification and Plans.

Sealed Tenders, in the endorsed envelope provided, and free from any mark indicating the sender, shall be returned to the undersigned by 5 p.m., THURSDAY, 5th January, 1961.

The Council do not bind itself to accept the lowest or any Tender.

F. ENTWISTLE,

Elmsleigh,  
73 High Street,  
Staines, Middx.

## MILDENHALL RURAL DISTRICT COUNCIL.

## NEW CEMETERY, MILDENHALL.

TENDERS are invited for the CONSTRUCTION of a NEW CEMETERY at THEFTORD ROAD, Mildenhall.

The Contract will include Site Levelling, Roads, Footpaths, Fences and Gates, Shelter and Store Building, Plans, Specification and Bills of Quantities and Forms of Tender may be obtained from the Engineer and Surveyor, Council Offices, King Street, Mildenhall, Suffolk.

Tenders, in plain sealed envelopes endorsed "Tender for Cemetery," to be received by the undersigned not later than 12 o'clock Noon on FRIDAY, 20th January, 1961.

F. DANNATT,

Council Offices,  
King Street,  
Mildenhall, Suffolk.

## BEDFORDSHIRE EDUCATION COMMITTEE.

TENDERS are invited for the SUPPLY and DELIVERY of the FOLLOWING to the VARIOUS EDUCATIONAL ESTABLISHMENTS throughout the County:

- (a) Brooms, Brushes, etc.
- (b) Cleaning Materials, Hardware and Polishers.
- (c) Toilet Packs and Rolls.

Further particulars may be obtained from the DIRECTOR OF EDUCATION, Shire Hall, Bedford, by 17th DECEMBER, 1960.

## HOGSMILL VALLEY JOINT SEWERAGE BOARD.

## FUEL OIL.

TENDERS are invited for SUPPLY of 20,000 gallons CLASS "A" FUEL OIL delivered to Board's Works, Lower Marsh Lane, Kingston-upon-Thames, by road tank wagon in 2,000-gallon bulk loads and as when required during the year ended 31st MARCH, 1962.

Specification to accompany Tender, which is to be delivered to undersigned by 1st JANUARY, 1961.

H. E. BARRETT,

Guildhall,  
Kingston-upon-Thames.

## CONTRACTS

WILTSHIRE COUNTY COUNCIL.  
COUNTY ROADS.

TENDERS invited for 12 months from 1st April, 1961, for the FOLLOWING:—

- (1) Coated Roadstone—Tarmacadam (delivered to roadside).
- (2) Coated Roadstone—Bitumen Macadam (delivered to roadside).
- (3) Coated Roadstone—Bitumen Macadam, Mixed Aggregate (delivered to roadside).
- (4) Fine Cold Asphalt and Precoated Chippings (delivered to roadside).
- (5) Uncoated Roadstone and Chippings (delivered to roadside).
- (6) Coated and Uncoated Chippings (other than Limestone) for Surface Dressing (delivered to roadside).
- (7) Gravel and Sand (delivered to roadside).
- (8) Road Rollers (Hire of).
- (9) Tar, Bitumen and Bitumen Emulsions.
- (10) Mist Spraying.
- (11) Motor Spirit and Petroleum Products.
- (12) Concrete Products.

Conditions and Forms of Tender from County Surveyor, County Hall, Trowbridge.

Tenders, in a plain sealed envelope, must be delivered to the undersigned on or before 30th DECEMBER, 1960.

The County Council do not bind themselves to accept the lowest or any Tender.

R. P. HARRIES,

County Hall,  
Trowbridge, Wilts.

## BOROUGH OF WIMBLEDON.

## ANNUAL SUPPLY OF MATERIALS.

TENDERS are invited for the SUPPLY of ALL or ANY of the FOLLOWING MATERIALS for the 12 months commencing 1st April, 1961:—

- (1) Salt Glazed Stoneware Pipes and Fittings.
- (2) Concrete Paving Slabs.
- (3) Aggregates, Sands and Grit.
- (4) Cement.
- (5) Lime.
- (6) Cold Bitumen Emulsion.
- (7) Granite Chippings.
- (8) Tarmacadam.
- (9) Fine Bituminous Cold Asphalt.

Forms of Tender and Specification may be obtained not later than JANUARY 26th, 1961, on written application to the BOROUGH ENGINEER, Town Hall, Wimbledon, S.W.18.

## BOROUGH OF WREXHAM.

## (a) WHITEGATE ROAD IMPROVEMENT.

## (b) MONTGOMERY ROAD HOUSING ESTATE.

## (STAGE II).

FIXED-PRICE TENDERS are invited for the ABOVE CONTRACTS, which comprise Carriageway, Kerb Footpath and Surface Water Drainage Works.

General Conditions of Contract may be inspected, and Specifications, Bills of Quantities and Forms of Tender obtained from Mr. J. M. DAVIES, Borough Engineer and Surveyor, 31 Chester Street, Wrexham, on payment of a deposit of £2 2s. in respect of each contract, which will be refunded on receipt of a bona-fide Tender.

Tenders, in the envelopes provided, must be sealed and delivered to the undersigned not later than 12 Noon on the 9th JANUARY, 1961.

The Council does not bind itself to accept the lowest or any Tender.

PHILIP J. WALTERS,

Guildhall,  
Wrexham.

December, 1960.

## CAMBORNE - REDRUTH URBAN DISTRICT COUNCIL.

## TENDERS FOR MATERIALS AND SERVICES, 1961-62.

TENDERS are invited for the SUPPLY of the UNDERMENTIONED MATERIALS and SERVICES for the year ending 31st March, 1962:—

- | Schedule | Description   |
|----------|---|
| (1)      | Screws, Bolts and Nuts.   |
| (2)      | Paint and Glass.  |
| (3)      | Horse Haulage.  |
| (4)      | Protective Clothing (Jackets, Trousers, Coats, Leggings, Overalls, Rubber Boots). |
| (5)      | Mechanical Haulage.   |
| (6)      | Shovels, Brushes, Small Plan and Tools.   |
| (7)      | Sanitary Ware and Fittings.   |
| (8)      | Stoneware Pipes and Fittings.   |
| (9)      | Galvanised Tubes and Fittings.  |
| (10)     | Cement, Lime and other Building Materials.  |
| (11)     | Asbestos Rainwater Goods.   |
| (12)     | Roofing Tiles.  |
| (13)     | Ironmongery.  |
| (14)     | Ropper, Lubing and Fittings.  |
| (15)     | Roadstone.  |
| (16)     | Road Binders and Dressings.   |
| (17)     | Disinfectant and Miscellaneous Sanitary Requisites.                               |
| (18)     | Petrol, Oils and Grease.  |
| (19)     | Tyres and Inner Tubes.  |
| (20)     | Stationery.   |
| (21)     | Coffins and Funeral Arrangements.   |
| (22)     | Timber, Doors and Windows.  |
| (23)     | Concrete Blocks.  |
| (24)     | Electrical Equipment and Fittings.  |
| (25)     | Manhole Frames and Covers, etc.   |

Forms of Tender, Specifications and Conditions of Contract can be obtained from the undersigned, to whom completed Tenders should be returned not later than 10 a.m. on SATURDAY, the 28th January, 1961.

S. C. WILSON,

Council Offices,  
Camborne.

1st December, 1960.

## WEST KESTEVEN RURAL DISTRICT COUNCIL.

## ERECTION OF 20 DWELLINGS.

TENDERS are invited for the CONSTRUCTION of ONE PAIR of TRADITIONAL TYPE BUNGALOWS in the Parish of Westborough and THREE PAIRS of BUNGALOWS, TWO PAIRS of HOUSES and TWO BLOCKS of FLATS in the Parish of Skillington.

Bills of Quantities, Drawings, Specification and Forms of Tender can be obtained from the Council's Surveyor, Sandon Close, Grantham, on receipt of deposit of £2 2s., by cheque made payable to the West Kesteven Rural District Council, which will be returned on receipt of a bona-fide Tender not subsequently withdrawn.

Tenders to be forwarded to me at the Council Offices, Sandon Close, Grantham, in plain sealed envelopes marked "Erection of Dwellings at ——" by FRIDAY, the 30th December, 1960.

J. R. MORGAN,

Council Offices,  
Grantham.



## CONTRACTS

## CITY OF MANCHESTER.

TENDERS invited for the SUPPLY of One 4-ton Diesel Lorry with a Crew Type Cab. Details and Form of Tender from Director of Parks, Town Hall, Manchester, 2, must be returned to the undersigned by the 31st DECEMBER, 1960, in a plain sealed envelope, endorsed "Tender for Vehicle."

PHILIP B. DINGLE,  
Town Clerk.

## CITY OF MANCHESTER.

GLOSSOP OVERSPILL AREA—  
CHAPEL LANE, HADFIELD.

TENDERS invited for CONSTRUCTING 18,600 sq. yd. CARRIAGEWAY (Bitumen Macadam Base Course and Wearing Course), 2,000 lin. yd. of 9in. to 24in. dia. SEWER, and all ancillary works.  
Tender documents (returnable by 3rd JANUARY, 1961) obtainable from the CITY SURVEYOR (Room 228), Town Hall, Manchester, 2.

## CITY OF MANCHESTER.

HATCHETT ROAD, WOODHOUSE PARK,  
HOUSING DEVELOPMENT.

## ROAD AND SEWER CONTRACT.

TENDERS are invited for CONSTRUCTING 2,000 sq. yd. BITUMEN MACADAM CARRIAGEWAY, 660 lin. yd. SEWERAGE, 9in. to 15in. dia., and ancillary works.  
Tender documents (returnable by 9.30 a.m., 3rd JANUARY, 1961) obtainable from the CITY SURVEYOR (Room 228), Town Hall, Manchester, 2.

## WOKING URBAN DISTRICT COUNCIL.

## SHORES ROAD IMPROVEMENT (B.384).

TENDERS invited for ABOVE CONTRACT at HORSELL, Woking. Approx. 2,800 lin. yd. of Kerbing, 4,900 sq. yd. of Lean-mix Concrete Base, 12,000 sq. yd. of Asphalt Surfacing, 2,300 sq. yd. of Footpath Construction, 400 lin. yd. of 12in. dia. Surface Water Sewer and ancillary works.  
Tender documents from Engineer and Surveyor on receipt of Two Guinea deposit, refundable only on receipt of bona-fide Tender not subsequently withdrawn. Plans seen normal office hours at Engineer's Office. Tenders to be delivered to the Clerk of the Council by 8.45 a.m., 22nd DECEMBER, 1960.

M. SHAWCROSS,  
Clerk of the Council.

Council Offices,  
Woking.

## URBAN DISTRICT OF RUISLIP-NORTHWOOD.

## ANNUAL CONTRACTS, 1961-62.

TENDERS are invited for the SUPPLY of the FOLLOWING GOODS or SERVICES for the year commencing 1st April, 1961—

- (1) Fuel Oils.
- (2) Lubricating Oils and Greases.
- (3) Stoneware Pipes, 6in. to 30in. dia.
- (4) Washed Sand and Ballast.
- (5) Clean Washed Granite Chippings.
- (6) Paints and Distemper.
- (7) Castings.
- (8) Concrete Flags.
- (9) Concrete Kerbs.
- (10) Tar Bitumen and Bitumen Emulsion.
- (11) Anti-stripping Additive.
- (12) Road Rollers.
- (13) Tarmacadam.
- (14) Highways Work—Carriageways.
- (15) Highways Work—Footpaths, Crossings, etc.

Tender Forms obtainable from the Engineer and Surveyor on receipt of large stamped addressed envelope.  
Tenders, in plain sealed envelopes, endorsed with the label supplied, to be delivered to the undersigned by 12 Noon on MONDAY, 9th JANUARY, 1961.

The Council does not bind itself to accept the lowest or any Tender.

EDWARD S. SAYWELL,  
Clerk of the Council.

Council Offices,  
Northwood,  
Middlesex.

## BRENTWOOD URBAN DISTRICT COUNCIL.

TENDERS are invited for the SUPPLY and DELIVERY of the UNDERMENTIONED GOODS and MATERIALS during the year ending 31st March, 1962—

- | Tender No. | Description  |
|------------|--|
| (1)        | Road Tar.  |
| (2)        | Tarmacadam, Bituminous Macadam, Bituminous Concrete.             |
| (3)        | Sand, Pit Sand, Ballast and Shingle.                             |
| (4)        | Precast Concrete Flagging and Kerbs.                             |
| (5)        | Clinker, Ashes, Hardcore and Coke Breeze.                        |
| (6)        | Cement.  |
| (7)        | Glazed Ware Pipes.   |
| (8)        | Granite Chippings.   |
| (9)        | Cold Emulsion and Fine Cold Asphalt.                             |
| (10)       | Sharpening of Tools.   |
| (11)       | Mechanical Haulage and Plant.                                    |
| (12)       | Rebriestling of Mechanical Sweeper Brushes.                      |
| (13)       | Precast Concrete Pipes, Manholes and Gully Pots.                 |
| (14)       | Plastic White Lines.   |
| (15)       | Petrol, Diesel Fuel Oil, Gas Oil, Paraffin and Lubricating Oils. |
| (16)       | Turf.  |
| (17)       | Tools for Highway Work.  |
| (18)       | Oilmen's Sundries.   |
| (19)       | Brushes.   |
| (20)       | Protective Clothing.   |
| (21)       | Hydrated Lime.   |
| (22)       | Electric Light Bulbs.  |
| (23)       | Timber.  |
| (24)       | Split Chestnut Fencing, Oak Fencing Posts and Chestnut Stakes.   |
| (25)       | Chain Link Fencing.  |
| (26)       | Precast Concrete Fencing Posts.                                  |
| (27)       | Dustbins.  |
| (28)       | Rainwater Goods.   |
| (29)       | Sanitary Goods and Plumbers' Materials.                          |
| (30)       | Ironmongery and Castings.  |
| (31)       | Builders' Sundries.  |
| (32)       | Painters' Sundries.  |
| (40)       | Tyres and Tubes.   |
| (41)       | Salt for Snow Clearing.  |
| (43)       | Coke.  |

Specifications for Tenders Nos. (1) to (22) (incl.) and (40) to (43) (incl.) can be obtained from the Engineer and Surveyor, and Tenders Nos. (23) to (32) (incl.) from the Housing Manager.  
Tenders must be sent to me, in the envelope provided, bearing the Tender No., by 23rd DECEMBER, 1960.

CLEMENT BOOTH,  
Clerk of the Council.

Council Offices,  
Brentwood.

## CONTRACTS

## ADMINISTRATIVE COUNTY OF LEICESTER.

TENDERS are invited for a WIDENING SCHEME at MARKET BOSWORTH GRAMMAR SCHOOL, on the Market Bosworth-Sheepy Road, B.585.

The work consists of the Demolition of a Brick Boundary Wall and the Construction of a New Brick Wall; Road Widening; Footpath Drainage; and all ancillary works.

Further details and Form of Tender from the COUNTY ENGINEER AND SURVEYOR, County Offices, Grey Friars, Leicester, on deposit of £5.

Closing date: THURSDAY, 15th DECEMBER, 1960.

JOHN A. CHATTERTON,  
Clerk of the County Council.

## COUNTY BOROUGH OF EAST HAM.

## MILK IN SCHOOLS SCHEME.

TENDERS are invited for the SUPPLY of MILK for Milk in Schools Scheme. Forms (returnable by 30th DECEMBER, 1960) obtainable from CHIEF EDUCATION OFFICER, Town Hall Annexe, Barking Road, East Ham, E.6.

## CLACTON URBAN DISTRICT COUNCIL.

## HIGHWAYS ACT, 1959.

## MARLOWE ROAD, JAYWICK.

TENDERS are invited for CARRYING OUT ROADWORKS, comprising the Laying of 578 lin. yd. of 12in. and 15in. dia. CONCRETE PIPE SURFACE WATER SEWERS and the Construction of Bituminous Concrete Haunches to an existing Concrete Carriageway with 2,885 sq. yd. of Gravel Asphalt and Bitumen Macadam Surfacing, together with the Provision of Kerbing, Footways, etc.

Drawings and General Conditions of Contract may be seen at the Office of the Engineer and Surveyor, Town Hall, Clacton-on-Sea, who will supply Tender documents against a deposit of £2 2s., refundable on receipt of a bona-fide Tender.

Tender Forms, etc., must be delivered in a plain sealed envelope endorsed "Marlowe Road P.S.V.," but bearing no name or mark indicating the sender, to the undersigned on or before 10th JANUARY, 1961.

The Council do not bind themselves to accept the lowest or any Tender, and canvassing, directly or indirectly, will disqualify.

CHARLES B. HEARN,  
Clerk of the Council.

Town Hall,  
Clacton-on-Sea.

## URBAN DISTRICT COUNCIL OF BASILDON.

## TENDERS FOR PRIVATE STREET WORKS.

The Council will shortly be inviting TENDERS for MAKING-UP a Considerable Mileage of PRIVATE STREETS, commencing with a Contract including approx. 1,700 sq. yd. 6in. and 8in. dia. Carriageways; 6,500 sq. yd. Tarmacadam and Cold Asphalt Footways; 1,730 lin. yd. Surface Water Sewers between 6in. and 30in. dia.; 580 lin. yd. 6in. dia. Foul Sewers.

Contractors wishing to be considered for the receipt of Tender documents for this work should submit their names to the ENGINEER AND SURVEYOR, Council Offices, 88 Town Square, Basildon, Essex, not later than FRIDAY, 16th DECEMBER, 1960, giving details of similar works for other Authorities to whom reference may be made.

## DORKING AND HORLEY RURAL DISTRICT COUNCIL.

## TENDER FOR REFUSE COLLECTION VEHICLE.

## DELIVERY OF REFUSE COLLECTION VEHICLE.

Copy of the Specification may be obtained from the Engineer and Surveyor, Council Offices, Massetts Road, Horley, Surrey.  
Tenders, in plain sealed envelope endorsed "Tender for Refuse Collection Vehicle," should reach the undersigned not later than Noon on MONDAY, the 19th DECEMBER, 1960.

The Council does not bind itself to accept the lowest or any Tender.

MAURICE L. RIDGERS,  
Clerk to the Council.

Dorking and Horley R.D.C.,  
Council Offices,  
Chalkpit Lane,  
Dorking, Surrey.

## WARE RURAL DISTRICT COUNCIL.

## GREAT AMWELL SEWERAGE.

## STANDON—EXTENSIONS TO SEWAGE DISPOSAL WORKS.

## HUNSDON—SEWAGE PUMPING STATION.

## CONTRACT NO. 5.

## TO CONTRACTORS.

The above-named Council invite TENDERS for the EXECUTION OF SEWERAGE WORKS, comprising the Furnishing and Laying of about 1,400 yd. of 9in. and 6in. dia. Stoneware and Cast-iron Sewers, 150 lin. yd. of 9in. Cast-iron Pumping Mains, and a Lifting Station at Great Amwell; Extensions to Sewage Disposal Works, comprising Balancing Tank, Sedimentation Tank, Humus Tanks, Sludge Drying Beds, Sludge and Top-water Pumping Station at Standon; a Sewage Pumping Station at Hunsdon; and the Construction of Manholes and other appurtenant works.

Contractors desirous of tendering are requested to send their names and addresses to MESSRS. D. BALFOUR AND SONS, MM.I.C.E., 131 Victoria Street, Westminster, London, S.W.1, accompanied by a cheque deposit of £10 made payable to Ware Rural District Council, not later than TUESDAY, 20th DECEMBER, 1960, after which all particulars will be forwarded. The deposit will be returned on receipt of a bona-fide Tender and the receipt of all printed documents after the Contract has been let.

It is essential that the contractor shall have had considerable experience in similar works and be prepared to furnish security with an approved society for the fulfilment of the Contract.

Tenders, in plain sealed envelopes endorsed "Tender for Sewerage," must be sent to the undersigned by a date to be given by the Engineers.

The lowest or any Tender will not necessarily be accepted.

R. W. JENKINS,  
Clerk of the Council.

Council Offices,  
97 New Road,  
Ware, Herts.

1st DECEMBER, 1960.

## CONTRACTS

## HERTFORDSHIRE COUNTY COUNCIL.

## COUNTY ROADS.

The Hertfordshire County Council invite TENDERS for the FOLLOWING for the year ending 31st March, 1962—

- Supply and Delivery of—
- (1) Tarmacadam.
- (2) Asphalt and Bitumen Macadam.
- (3) Granite and Slag Chippings (for Surface Dressing).
- (4) Tar, Tar and Bitumen Compound, Bitumen and Bitumen Emulsion.
- (5) Granite and Concrete Kerbs and Channels.
- (6) Concrete Tubes, Manholes and Gullies.
- (7) Stoneware and Pitch Fibre Pipes and Gullies and Clayware Field Drain Pipes.
- (8) Cement.
- (9) Concrete Aggregates, Hoggins, Grit and Sand.
- (10) Shingle for Surface Dressing.
- (11) Paviors.
- (12) Roadmen's Waterproof Clothing.
- (13) Lubricating Oils and Grease.
- Supply and Laying of—
- (14) Tarmacadam.
- (15) Asphalt and Bitumen Macadam.
- (16) Plastic White Lines.
- (17) Fixing of Reflecting Road studs.
- (18) Surface Spraying of Roads (for Surface Dressing).
- (19) Surface Dressing of Roads.
- (20) Heating and Planing of Highway Surfaces.
- (21) Kerbing, Footpath and Drainage Works.
- (22) Cleansing, etc., of Gullies.

Forms of Tender and envelopes for return may be obtained from the County Surveyor, County Hall, Hertford, on receipt of a stamped addressed foolscap envelope (or larger if forms for more than one Tender required). Envelopes covering such applications should be endorsed "Tenders." No Tender will be considered unless sent in the official envelope provided. Tenders for each item numbered above must be kept in separate envelopes, which must not bear any name or mark indicating the sender. All Tenders must reach the undersigned on or before MONDAY, the 9th JANUARY, 1961.

The lowest or any Tender will not necessarily be accepted.

NEVILLE MOON,  
Clerk of the County Council.

County Hall,  
Hertford.

December, 1960.

## DURHAM COUNTY COUNCIL.

## ANNUAL CONTRACTS.

The Durham County Council invite TENDERS and OFFERS for the SUPPLY of the FOLLOWING REQUISITES and SERVICES during the year ending 31st March, 1962—

- | No.  | Description   | These Tenders must be under seal |
|------|---|----------------------------------|
| (1)  | Bitumen Macadam, Tarmacadam, Dense Tar Surfacing Materials and Dry Roadstone. |                                  |
| (2)  | Road Tar, Tar Compounds, Bitumen and Cold Emulsions.                          |                                  |
| (3)  | Coarse Aggregate and Fine Aggregate (Gravel and Sand).                        |                                  |
| (4)  | Precast Concrete Kerbs and Concrete Flags.                                    |                                  |
| (5)  | Precast Reinforced Concrete Fencing and Safety Posts.                         |                                  |
| (6)  | Portland Cement.  |                                  |
| (7)  | Salt Glazed Ware Pipes and Fittings and Clayware Field Drain Pipes.           |                                  |
| (8)  | Concrete Pipes.   |                                  |
| (9)  | Cast-iron Gullies, Manhole Covers and Frames.                                 |                                  |
| (10) | Wooden Post and Rail Fences and Gates.  |                                  |
| (11) | Road Traffic Signs and Bollards.  |                                  |
| (12) | Hire of Heavy Plant, including Road Rollers.                                  |                                  |
| (13) | Hire of Mechanical Haulage.   |                                  |
| (14) | Hire of Mechanical Haulage for Snowploughing.                                 |                                  |
| (15) | Ready Mixed Concrete.   |                                  |
| (16) | Hard Burnt Red Shale.   |                                  |
| (17) | Fine Ashes.   |                                  |
| (18) | Land Tractors for Snowploughing.  |                                  |
| (19) | Team Labour.  |                                  |
| (20) | Supply and Laying of Plastic White Lines.                                     |                                  |

Forms of Tender, General Conditions, Specifications and undertakings for any of the above may be obtained from the County Surveyor, Aykley Hall, Durham.

Tenders, in plain sealed envelopes, endorsed "Tender for ——" are to be delivered to the undersigned not later than Noon on 6th JANUARY, 1961.

The Council do not bind themselves to accept the lowest or any Tender.

J. K. HOPE,  
Clerk of the County Council.

Shire Hall,  
Durham.

1st DECEMBER, 1960.

## CITY OF MANCHESTER.

TENDERS are invited for the PROVISION of ROAD and CAR PARK LIGHTING at MANCHESTER AIRPORT, the installation to consist of Cut-off Mercury Vapour Lanterns mounted on Concrete Columns.

Tender Forms, returnable by 3rd JANUARY, 1961, from the CITY SURVEYOR, Town Hall, Manchester, 2.

## CATERHAM AND WARLINGHAM URBAN DISTRICT COUNCIL.

## IMPROVEMENT OF HILLBURY ROAD (PART).

## WARLINGHAM.

TENDERS are invited for the EXECUTION OF IMPROVEMENT WORKS in a Further Section of Hillbury Road, Warlingham, between its junction with Tithepit Shaw Lane and No. 36 Hillbury Road. The works include the Excavation and Carting to Tip of about 5,600 cu. yd. of Earth and Chalk; the Provision of 800 lin. yd. of Kerbing; 1,100 sq. yd. of New Footpath; 1,200 sq. yd. of New Carriageway; 250 lin. yd. of Guard Rail; incidental works of Drainage, and the Construction of Embankment and Retaining Walls.

Copies of the Bill of Quantities, Specification, Drawing, and Form of Tender may be obtained on application to the Engineer and Surveyor, Council Offices, Caterham, upon payment of a deposit of £2 2s., which will be returned upon receipt of a bona-fide Tender.

Tenders, sealed in the envelope provided, are to be returned to the undersigned not later than Noon on WEDNESDAY, 28th DECEMBER, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

B. J. SMERDON,  
Clerk of the Council.

Council Offices,  
Caterham.

## CONTRACTS

## ROYAL BOROUGH OF KINGSTON-UPON-THAMES.

## RESURFACING OF DISTRICT ROADS.

TENDERS invited for RESURFACING of approx. 12,000 sq. yd. of CARRIAGEWAY with 3/4 in. Machine-laid Bituminous Macadam.  
Contract documents from Borough Surveyor, Guildhall, Kingston-upon-Thames, on deposit of Two Guineas, returnable on receipt of bona-fide Tender not subsequently withdrawn.  
Tenders to undervise by First Post on TUESDAY, 20th December, 1960.

L. V. POWELL,

Town Clerk.

Guildhall,  
Kingston-upon-Thames.  
30th November, 1960.

## CITY OF ROCHESTER.

LONDON-CANTERBURY-DOVER TRUNK ROAD, A.2.  
RESURFACING OF PART OF COMMERCIAL ROAD;  
RECONSTRUCTION OF PART OF CORPORATION STREET.

FIXED-PRICE TENDERS are invited for the HEATING AND PLANING and RESURFACING of 1,450 sq. yd. approx. of Commercial Road between its western junction with Strood High Street and Knight Road. Also for the RECONSTRUCTION of 330 sq. yd. approx. of Corporation Street between Gas House Road and Northgate, involving the Breaking-out of the existing Carriageway and Reconstructing with 9 in. Lean-mix Concrete, 9 in. Reinforced Concrete and 3 1/2 in. Two Course Hot Rolled Asphalt, together with other ancillary works.

The Drawing may be inspected at the Office of JAMES A. PEEL, A.M.I.C.E., M.I.Mun.E., City Surveyor, 65 Maidstone Road, Rochester, during normal working hours.  
Special Conditions of Contract, Ministry of Transport's Specification for Road and Bridge Works, Amendments thereto, and Bill of Quantities may be obtained at the above address on payment of a deposit of £3 3s. which will be refunded on the receipt of a bona-fide Tender.

Tenders, in a plain sealed envelope endorsed "Tender for Resurfacing of Part of Commercial Road and Reconstruction of Part of Corporation Street," must be received by the undersigned not later than 5 p.m. on FRIDAY, 30th December, 1960.  
The Corporation does not bind itself to accept the lowest or any Tender.

PHILIP H. BARTLETT,

Town Clerk.

Guildhall,  
Rochester,  
Kent.  
1st December, 1960.

## ORPINGTON URBAN DISTRICT COUNCIL.

## CLASSIFIED ROADWORKS—CROFTON ROAD, A.232.

TENDERS are invited for the WIDENING of Four SECTIONS of the ABOVE ROAD, totalling approx. 890 yd. in length. The whole of the works are contained in about 0.9 mile of the road.

The works consist of: Excavation, New Carriageway and Footpath Construction, Drainage Works and Accommodation Works to Private Property. It is desired that work on three of the four Sections should be carried out simultaneously, and will consider the employment by the successful contractor of approved sub-contractors.

The General Conditions of Contract and Drawings may be inspected at my Office, and the Specification, Bills of Quantities and Form of Tender obtained from me upon receipt of £2 deposit which will be refunded upon receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in the envelope provided, and endorsed "Works—Crofton Road," must be delivered to the Clerk of the Council, Council Offices, Crofton Road, Orpington, Kent, not later than 9 a.m. on SATURDAY, 31st December, 1960.

The Council does not bind itself to accept the lowest or any Tender.

L. W. FREEMAN,

Engineer and Surveyor.

Civic Offices,  
The Walnuts,  
High Street,  
Orpington, Kent.  
29th November, 1960.

## CHIGWELL URBAN DISTRICT COUNCIL.

TENDERS are invited for FENCING about 240 lin. yd. at RECTORY LANE CHILDREN'S PLAY-GROUND, LOUGHTON.

Tender Forms, Bills of Quantities and Specification on deposit of £1 1s. (returnable after submission of bona-fide Tender not subsequently withdrawn) and return of documents issued from Engineer and Surveyor (address below), where Conditions of Contract may be inspected. Contract will provide for Fair Wages Clause and Bond.

Tenders, sealed in official envelope (provided), bearing no mark indicating sender, to CLERK OF THE COUNCIL, Council Offices, Old Station Road, Loughton, Essex, by MONDAY, 2nd January, 1961.  
The Council does not bind itself to accept the lowest or any Tender.

## LEEDS REGIONAL HOSPITAL BOARD.

## TO MECHANICAL AND ELECTRICAL ENGINEERING CONTRACTORS.

Separate FIXED-PRICE TENDERS are invited for CARRYING OUT: (a) HEATING AND H.W.S. WORK, and (b) ELECTRICAL WORK, in connection with the Reorganisation of the Main Block (Stage III) at STANLEY ROYD HOSPITAL, Wakefield.

Applications for Forms of Specification and Drawings, stating clearly the Section(s) for which documents are required, and accompanied by a deposit of £2 2s. for each Section (which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn) must be made to the Architect to the 12 Noon on WEDNESDAY, 14th December. Cheques should be made payable to the Leeds Regional Hospital Board and crossed.

A copy of the Drawings, Conditions of Tender and Conditions of Contract may be inspected at the Office of MESSRS. J. G. L. POULSON, Chartered Architects, 29 Ropergate, Pontefract.

Sealed Tenders, in the endorsed envelope provided, must be delivered to the undersigned not later than 12 Noon on WEDNESDAY, 11th January, 1961.  
The Board does not bind itself to accept the lowest or any Tender.

WM. A. SHEE,

Secretary to the Board.

Park Parade,  
Harrogate,  
Yorks.

## CONTRACTS

## COUNTY BOROUGH OF SWANSEA.

## DEMOLITION AND CLEARANCE OF BRACELET BAY CAMP, MUMBLES, SWANSEA.

TENDERS are invited for the DEMOLITION and CLEARANCE OF BRACELET BAY CAMP, Mumbles, Swansea.

Copies of the Conditions of Contract, Specification, and Plans, and other Contract documents can be obtained from the Borough Estate Agent, Guildhall, Swansea, on payment of a deposit of £2, which will be refunded after delivery of a bona-fide Tender (not subsequently withdrawn) and the return of all documents.

Tenders must be delivered to me at this address on or before the 16th DECEMBER, 1960, in the envelope provided, which must not bear any mark indicating the sender.

The Corporation will not necessarily accept the lowest or any Tender.

IOWERTH J. WATKINS,

Town Clerk.

The Guildhall,  
Swansea.

## BOROUGH OF ROMFORD.

## IMPROVEMENT OF STREET LIGHTING.

## COLCHESTER ROAD, A.12.

TENDERS are invited for SUPPLY AND DELIVERY ONLY of 200-W SODIUM LANTERNS, LAMP'S, Control Gear and Steel Lamp Brackets, for Conversion of 69 existing Lighting Units.  
Specification and Form of Tender may be obtained from Borough Engineer and Surveyor, Town Hall, Romford, on receipt of cheque for £2 2s., which will be returned on receipt of a bona-fide Tender not later than MONDAY, 2nd January, 1961.

JOHN E. SYMONS,

Town Clerk.

Town Hall,

Romford.

## BOROUGH OF ASHTON-UNDER-LYNE.

## CENTRAL PURCHASING.

TENDERS are invited for the SUPPLY of the FOLLOWING for the Various Departments of the CORPORATION:

(1) Uniform Clothing.  
(2) Protective Clothing.  
Applications for particulars of requirements, etc., of each of the above, enclosing stamped and addressed envelope, to be sent to me.

Tenders to be delivered by MONDAY, 2nd January 1961.  
The Council does not bind itself to accept the lowest or any Tender, and reserves the right to accept part only of a tender.

G. A. MALONE,

Town Clerk.

Town Hall,

Ashton-under-Lyne,

Lancashire.

## BOROUGH OF BEBINGTON.

## CEMENT GROUTING OF CONCRETE CARRIAGEWAYS—NEW CHESTER ROAD.

TENDERS are invited for CEMENT PRESSURE GROUTING of approx. 4,700 sq. yd. of ASH FOUNDATION beneath Concrete Road Slabs.  
Forms of Tender, Specification and Bills of Quantities may be obtained from the Borough Engineer and Surveyor, Town Hall, Bebington, on deposit of One Guinea, returnable on receipt of a bona-fide Tender.

Tenders, in plain sealed envelopes endorsed "Tender—Pressure Grouting New Chester Road," should be received by the undersigned not later than Noon on the 20th DECEMBER, 1960.

The Corporation does not bind itself to accept the lowest or any tender.

G. CHAPPELL,

Town Clerk.

Town Hall,

Bebington,

Cheshire.

## CITY OF MANCHESTER.

TENDERS invited for MECHANICAL ENGINEERING SERVICES INSTALLATION to the CENTRAL TECHNICAL COLLEGE, Manchester, 15.

Specification and Drawings from CITY ARCHITECT, P.O. Box 48d, Town Hall.

Tenders returnable by 4th JANUARY, 1961.

## CITY OF MANCHESTER.

TENDERS invited for ALTERATIONS and ADDITIONS to ST. THOMAS C. of E. SCHOUL ARDWICK. Bill of Quantities from CITY ARCHITECT, P.O. Box 48d, Town Hall.

Tenders returnable by 30th DECEMBER, 1960.

## RHYL URBAN DISTRICT COUNCIL.

## MAIN DRAINAGE—PUMPING PLANT AND STAND-BY DIESEL ALTERNATOR AT WESTBOURNE AVENUE PUMPING STATION.

TENDERS are invited on a fixed-price basis for the FOLLOWING:

(a) Supply and complete Installation of Pumps, together with Motors, Starters, Supporting Steelwork, Pipework, Valves, Venturi Meters, Pump Well, Access Stairs, etc. The pumps required are as follows, the total head being approx. 38ft.:—

Three Vertical Sewage Pumps, capacity 1,560 g.p.m. each.  
Two Intermediate Vertical Storm Water Pumps, capacity 8,250 g.p.m. each.  
Two Main Storm Water Pumps, capacity 12,450 g.p.m. each.

(b) Supply, Delivery and complete Installation of a Diesel Alternator Set with an engine output of 800-b.h.p. or alternatively for the Supply and Delivery only of such Alternator Set.

Copies of Specifications and Drawings can be obtained from the Engineer and Surveyor, Council Offices, Rhyl, Flint., upon payment of £5 for (a) and £3 for (b), which deposit will be refunded on the submission of a bona-fide Tender, not subsequently withdrawn, and the return of the loaned Drawings. Tenders, endorsed respectively (a) Tender for Pumping Plant, or (b) Tender for Generator, are to be delivered in plain sealed envelope bearing no name or mark indicating the sender, to the undersigned not later than SATURDAY, the 28th January, 1961.

The Council does not bind itself to accept the lowest or any Tender, and the provisional acceptance of a Tender will be subject to the approval of the Minister of Housing and Local Government.

A. E. EDWARDS,

Clerk of the Council.

Council Offices,

Rhyl, Flint.

## CONTRACTS

## BOROUGH OF WREXHAM.

(a) 66 DWELLINGS AND 42 GARAGES—MONTGOMERY ROAD, WREXHAM.  
(b) 14 DWELLINGS—LODGE STREET/PARK STREET, WREXHAM.

FIXED-PRICE TENDERS are invited for the ABOVE CONTRACTS.

Application for details, Tender Forms and Bills of Quantities to Borough Engineer and Surveyor, 31 Chester Street, Wrexham, enclosing deposit of £2 2s. for each Contract, refundable on receipt of bona-fide Tender.

Closing date for receipt of Tenders: 12 Noon, MONDAY, 9th January, 1961.

The Council does not bind itself to accept the lowest or any Tender.

PHILIP J. WALTERS,

Town Clerk.

Guildhall,  
Wrexham,  
December, 1960.

## BOROUGH OF HENDON.

(i) HOUSING SITE NO. 8—SPUR ROAD, EDGWARE.

(ii) HOUSING SITE NO. 45—PHASE II—NEW BRENT STREET, HENDON, N.W.4.

The BOROUGH COUNCIL invites TENDERS for: (i) EXTENSION OF CARRIAGEWAY to WILBERFORCE COURT and CONSTRUCTION OF HARDSTANDING at HOUSING SITE NO. 8, Spur Road, Edgware; (ii) IMPROVEMENT OF EATON ROAD and CONSTRUCTION OF ACCESS ROAD off Eaton Road.

In each case the Form and Conditions of Tender, Specification and Bills of Quantities will be issued by, and Plans may be inspected at the Offices of, the Borough Engineer and Surveyor, to whom applications for the documents must be made (stating for which of the above projects it is proposed to tender) not later than MONDAY, the 19th December, 1960.

Applications must be accompanied by a deposit of £2 2s. in respect of each of the above projects, which will be returned on receipt of a bona-fide Tender, on the form provided, and not subsequently withdrawn. Cheques should be made payable to Hendon Corporation.

Tenders must be received by the 2nd JANUARY, 1961.

This invitation to tender is subject to certain terms and conditions, particulars of which will be forwarded to each tenderer.

R. H. WILLIAMS,

Town Clerk.

Town Hall,

Hendon, N.W.4.

## URBAN DISTRICT OF TETTENHALL.

## PLAY SPACE—CASTLECROFT AVENUE, WIGHTWICK.

WORK COMPRISES LEVELLING, SURFACING, DRAINAGE AND ERECTION OF PLAY EQUIPMENT.

The COUNCIL invite TENDERS for CARRYING OUT the ABOVE WORK.

Specification and Bills of Quantities can be obtained from J. W. MASON, M.I.Mun.E., M.T.P.I., Engineer and Surveyor, Council Offices, Tettenhall, on receipt of deposit of Two Guineas, returnable on receipt of a bona-fide Tender not subsequently withdrawn. Tenders, in plain sealed envelopes endorsed "Play Space—Castlecroft Avenue," to be delivered to the undersigned not later than Noon on FRIDAY, 30th December, 1960.

The Council does not bind themselves to accept the lowest or any Tender.

Dated this 2nd day of December, 1960.

R. WAKEFIELD RUSSELL,

Clerk or the Council.

Council Offices,

Tettenhall.

## MALMESBURY RURAL DISTRICT COUNCIL.

## WORKS OF WATER SUPPLY.

The Council invite TENDERS on a Fixed-price Basis from experienced contractors for the LAYING of approx. 2,600 lin. yd. of 3 in. d.a. ASBESTOS-CEMENT WATER MAIN, with all ancillary works, in the PARISH OF OAKSEY.

Tendering documents may be obtained from the Council's Water Manager, at the Offices of the Council.

Tenders are to be delivered to the undersigned by not later than SATURDAY, the 14th January, 1961.  
The Council does not bind themselves to accept the lowest or any Tender.

R. BUTT,

Clerk of the Council.

R.D.C. Offices,

10 High Street,

Malmesbury, Wilts.

## SALISBURY AND WILTON RURAL DISTRICT COUNCIL.

## WYLVE VALLEY WATER SUPPLY.

TENDERS are invited for the SUPPLY AND FITTING of a BERESFORD SUBMERSIBLE PUMP and the Adaptation of the Existing Starter at the PUMPING STATION serving the Wylve Valley.

Copies of the Specification of Works, Form of Tender can be obtained from the Surveyor to the Council, 26 Endless Street, Salisbury.

Sealed Tenders must be returned to the undersigned not later than TUESDAY, 20th December, 1960.

The Council does not bind itself to accept the lowest or any Tender.

C. S. BROWN,

Clerk of the Council.

Council Offices,

26 Endless Street,

Salisbury, Wilts.

29th November, 1960.

## WORTLEY RURAL DISTRICT COUNCIL.

## CONSTRUCTION OF REFUSE COLLECTION DEPOT, OFF GRENOS CRESCENT, GRENOSIDE—STAGE II.

TENDERS invited for the CONSTRUCTION OF GARAGE BLOCK, SERVICE GARAGE, SALVAGE BUILDING, STORES, and YARD SURFACING.

Drawings, Bill of Quantities, Specification and Tender documents may be obtained from MR. ARTHUR WILEY, M.I.Mun.E., M.Inst.H.E.E., M.R.S.H., on payment of a deposit of £5, which will be returned on submission of a bona-fide Tender and the return of all documents.

Sealed Tenders, in the endorsed envelope provided, must be received by the undersigned not later than 12 Noon on FRIDAY, 20th January, 1961.

ADRIAN M. KELLY,

Clerk of the Council.

Council Offices,

Grenoside,

Sheffield.

## CONTRACTS

## WORCESTERSHIRE COUNTY COUNCIL.

The Council are preparing selected lists of contractors from whom TENDERS may be invited for the FOLLOWING SERVICES (Labour and Plant only) for the Highways and Bridges Department, required from time to time during the year commencing 1st April, 1961, and ending on 31st March, 1962. Contractors, competent to undertake such work, who wish to be placed on the appropriate list, should forward their names to the County Surveyor, County Buildings, Worcester, not later than 3rd JANUARY, 1961. They should state clearly the service or services to which their application relates:—

- (1) Surfacing Works (Hand and Machine Laying).
- (2) Kerblaying.
- (3) Footpath Paving.
- (4) Patching Work.
- (5) Resurfacing, etc., Footpaths.
- (6) Insertion of Catseye Reflecting Studs.
- (7) Laying Plastic White Lines (including Supply of Material).
- (8) Heating and Planing.
- (9) Drainage.

W. R. SCURFIELD,  
Clerk of the County Council.  
(G.210)

Shire Hall,  
Worcester.

2nd December, 1960.

## WORCESTERSHIRE COUNTY COUNCIL.

## TENDERS, ETC., FOR SUPPLIES.

The Council are preparing selected lists of firms from whom TENDERS or PRICES for SUPPLIES, may be invited from time to time by the Highways and Bridges Department for the FOLLOWING, during the period commencing 1st April, 1961, and ending on 31st March, 1962.

Forms or suppliers who wish to be placed on the appropriate list should forward their names to the County Surveyor, County Buildings, Worcester, not later than 3rd JANUARY, 1961, stating clearly the item or items to which their application refers:—

- (1) Batteries—Car, Commercial Vehicles and Heavy Duty.
- (2) Derv, Gas Oil, T.V.O. and Paraffin.
- (3) Drawing Office Equipment and Supplies.
- (4) Fencing—Wood, Iron, Concrete, etc.
- (5) Gates and Posts.
- (6) Hire of Vehicles and Civil Engineering Plant.
- (7) Iron and Steel, Bolts and Nuts, Screws and General Ironmongery.
- (8) Iron Castings—Gully Grates, Inspection Covers, etc.
- (9) Lubricating Oils and Grease.
- (10) Paints, Ready Mixed to B.S.S.
- (11) Quicks, Trees and Shrubs.
- (12) Spare Parts, Replacement Units and Accessories for various types of Transport Vehicles and Civil Engineering Plant.
- (13) Tarpaulins and Covers for Plant.
- (14) Timber, Sills and Hardwood.
- (15) Tools, Light Plant, Rubber Boots, Protective Clothing, etc.
- (16) Traffic and Direction Signs.
- (17) Tree Felling, Blasting, etc.
- (18) Tubing, Galvanised and Steel.
- (19) Tyres and Tubes.

W. R. SCURFIELD,  
Clerk of the County Council.  
(G.211)

Shire Hall,  
Worcester.

December, 1960.

## WORCESTERSHIRE COUNTY COUNCIL.

## HIGHWAYS AND BRIDGES DEPARTMENT.

The Council invite TENDERS for the SUPPLY of the UNDERMENTIONED MATERIALS, etc., during the year ending 31st March, 1962:—

- (1) Tarmacadam, Bitumen Macadam and Asphalt Surfacing Materials.
- (2) Quarry Stone.
- (3) Crushed Gravel and Sand.
- (4) Road Tars, Bitumen (Cold) Emulsion.
- (5) Concrete Goods, Cement, Bricks, Stoneware Pipes.

Tender Forms, with Specifications and Conditions of Contract, can be obtained on application to the County Surveyor, County Buildings, Worcester, and applicants are requested to state for which item or items they wish to tender. The Tender Form, duly completed, must be returned in the envelope provided for the purpose, bearing no name or mark indicating the sender, endorsed "Tender for ——" not later than 20th JANUARY, 1961.

The Council will not necessarily accept the lowest or any Tender, and they may accept the whole or any part of any Tender.

W. R. SCURFIELD,  
Clerk of the County Council.  
(G.212)

Shire Hall,  
Worcester.

December, 1960

## BOROUGH OF ROMFORD.

## ANNUAL TENDERS FOR MATERIALS, TOOLS, ETC.

TENDERS are invited for the SUPPLY of the FOLLOWING ITEMS:—

- M. 1. Bitumen Macadam.
- M. 2. Lorry Hire.
- M. 3. Granite Chippings.
- M. 4. Tarring Limestone.
- M. 5. Shingle.
- M. 6. Concrete Kerbs and Quadrants.
- M. 7. (a) Bitumen and/or Tar Compounds (sprayed direct on to roads).  
(b) Cold Emulsion in Drums.
- M. 8. Disinfectants.
- M. 9. Ashes and Breeze.
- M. 10. Stoneware Pipes.
- M. 11. Cement.
- M. 12. Ballast.
- M. 13. Sand.
- M. 14. Lime, Hydrated.
- M. 15. Cold Asphalt.
- M. 16. Petrol, Oils and Greases.
- M. 17. Artificial Stone Paving Slabs.
- M. 18. Large Steam Coal.
- M. 19. Window Cleaning.
- M. 20. Tyres and Tubes.
- M. 21. Ironmongery, Builders' Sundries and Galvanised Ware.
- M. 22. Tools.
- M. 23. Paints.
- M. 24. Soaps and Cleaning Sundries.
- M. 25. Brushes and Brooms.
- M. 26. Electric Light Bulbs (including Bulbs for Street Lighting Maintenance).

Conditions of Contract, etc., obtainable from the Borough Engineer at the Town Hall, Romford, Essex (stamped addressed foolscap envelope to be supplied). Tenders to be sent to me not later than 2nd JANUARY, 1961.

JOHN E. SYMONS,  
Town Clerk.

Town Hall,  
Romford.

## CONTRACTS

## COUNTY BOROUGH OF BOURNEMOUTH.

## BOROUGH ENGINEER'S DEPARTMENT.

TENDERS are invited for the SUPPLY of Two 16/24 Eagle Compressors REFUSE VEHICLES. Tender Form and Specification obtainable from the Borough Engineer, Town Hall, Bournemouth. Tenders to reach me by the 31st DECEMBER, 1960.

A. LINDSAY CLEGG,  
Town Clerk.

## WORSBROUGH URBAN DISTRICT COUNCIL.

## BIRDWELL RELIEF SEWER.

The Council invites TENDERS on a Fixed-price Basis from responsible contractors for the CONSTRUCTION of approx. 1,620yd. of 18in. dia. and 430yd. of 9in. dia. CONCRETE TUBE SEWERS with Flexible Joints, together with Manholes and Connections to existing Sewers.

Specifications and Bill of Quantities and Form of Tender may be obtained, and Drawings and Conditions of Contract inspected, at the Office of the Engineer and Surveyor, Saville House, Worsbrough Bridge, near Barnsley, on receipt of a deposit of Two Pounds, which will be refunded on the receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in plain sealed envelopes endorsed "Birdwell Relief Sewer," must reach the undersigned not later than Noon on MONDAY, 9th January, 1961. The Council does not bind itself to accept the lowest or any Tender.

HENRY C. HAND,  
Clerk of the Council.

Saville House,  
Worsbrough Bridge,  
Near Barnsley.

## PORTISHEAD URBAN DISTRICT COUNCIL.

## SEWER EXTENSION FOR WETLANDS LANE.

FIXED-PRICE TENDERS are invited for the CONSTRUCTION of approx. 520 lin. yd. of 9in. dia. SEWER, of Concrete Flexible Jointed Pipes and Concrete Tube Manholes.

Tendering documents may be obtained from the Council's Consulting Engineers, MESSRS. HARVEY McGILL AND HAYES, 38 Market Place, Chippenham, Wilt., at whose Office the Plans may be inspected, by appointment, during the normal office hours.

Applications to be accompanied by a cheque for Three Guineas, payable to the Portishead Urban District Council, and, in the case of contractors who have not previously carried out work for the Council or under the direction of the Engineers, by particulars of similar work done, and the names and addresses of the Engineers concerned. The deposit will be returnable on receipt of a bona-fide Tender not subsequently withdrawn, and the return of all tendering documents.

Tenders are to be delivered to the undersigned not later than 10 a.m. on SATURDAY, 31st December, 1960, in a plain sealed envelope endorsed "Sewer Extension for Wetlands Lane".

The Council do not bind themselves to accept the lowest or any Tender.

A. S. REYNOLDS,  
Clerk of the Council.

Council Offices,  
Portishead,  
Bristol.

## WESTBURY URBAN DISTRICT COUNCIL.

## WESTBURY SEWERAGE—CONTRACT NO. 3.

TENDERS are invited for the WORK REQUIRED in the CONSTRUCTION of approx. 210 lin. yd. of 24in. dia. CONCRETE SEWER and Manholes, together with other works incidental thereto, at WESTBURY, in the County of Wiltshire.

The documents and Drawing may be inspected by intending contractors at the Council's Offices, or at the Offices of the Engineers, MESSRS. A. P. I. COTTERELL AND SON, 54 Victoria Street, Westminster, S.W.1, on or after Monday, the 12th December, 1960, during the usual office hours.

A copy of the Specification, Bills of Quantities, Drawing and Form of Tender will be forwarded by the Engineers to intending contractors on payment by them of Two Guineas, which will be returned on receipt of a bona-fide Tender not subsequently withdrawn, and other documents supplied.

Intending contractors must submit, with their tenders, references to works of similar character they have undertaken.

Completed Forms of Tender and the Priced Bills of Quantities must be delivered, in separate sealed envelopes, to the undersigned, and endorsed "Westbury Sewerage—Contract No. 3," not later than 10 a.m. on MONDAY, 16th January, 1961. All other documents, similarly endorsed, are to be sent by the same post to the Engineers.

The Council do not bind themselves to accept the lowest or any Tender.

F. W. FEATHERSTONE,  
Clerk of the Council.

Laverton Institute,  
Westbury,  
Wilt.

## HUCKNALL URBAN DISTRICT COUNCIL.

## HIGHWAY IMPROVEMENT WORKS, 1960-61.

## CONTRACT NO. 2.

TENDERS are invited for the FOLLOWING HIGHWAY IMPROVEMENT WORKS within the Urban District, all of which will be let as one contract:—

- (a) Portland Road—Rekerbing and Resurfacing of Footpaths.
- (b) Watnall Road—Realignment of Junction with Derbyshire Lane.
- (c) Station Terrace—Rekerbing and Resurfacing of Footpaths.

The works consist of the following approx. quantities:—

- 1,100 lin. yd. Kerbing.
- 2,800 sup. yd. Tarmacadam Footpath Surfacing.
- 700 sup. yd. Flagged Footpath Surfacing.

The Conditions of Contract, Specification, Bills of Quantities, etc., may be obtained from the Engineer and Surveyor, Council Offices, Watnall Road, Hucknall, on payment of £2 2s. deposit, which will be returned on receipt of a bona-fide Tender and returnable documents.

Tenders, in plain sealed envelopes, which will be supplied suitably endorsed, must be received by the undersigned not later than 5 p.m. on WEDNESDAY, the 28th December, 1960.

The Council does not bind itself to accept the lowest or any Tender.

H. SHARP,  
Clerk of the Council.

Council Offices,  
Hucknall,  
Nottingham.

2nd December, 1960.

## CONTRACTS

## ROYAL COUNTY OF BERKSHIRE.

## NEWBURY EAST-WEST RELIEF ROAD.

TENDERS are invited for the EXTENSION of DUAL CARRIAGEWAYS on the ABOVE ROAD for a distance of approx. 300yd.

The work consists of Drainage, Kerbing, Carriageway Foundation, Surfacing and ancillary works, and copies of the Tender documents may be obtained on application to the County Surveyor, Shire Hall, Reading, not later than 15th DECEMBER, 1960, on payment of a deposit of £2, returnable after a bona-fide Tender has been received.

TENDERS to be lodged with the CLERK of the COUNCIL not later than the date marked on the envelope enclosed with the documents.

The Council do not bind themselves to accept the lowest or any Tender.

## BOROUGH OF BRIDPORT.

## LONGS LANE TO EAST ROAD—21IN. FOUL WATER SEWER.

The COUNCIL are prepared to consider TENDERS for the CONSTRUCTION of approx. 409 lin. yd. of 21in. dia. FOUL WATER SEWER, DISMANTLING and REMOVING existing 12in. dia. SEWER and ancillary works.

Form of Tender, Specification and Bill of Quantities may be obtained upon application in writing, together with a deposit of £2 2s. (Two Guineas), from the Borough Engineer, Municipal Offices, South Street, Bridport.

Tenders should be returned to the undersigned in a plain sealed envelope, endorsed "21in. Sewer," not later than SATURDAY 14th January, 1961.

The Council are not bound to accept the lowest or any Tender.

F. C. M. FORWARD,  
Town Clerk.

Municipal Offices,  
Bridport.

1st December, 1960.

## SALTBURN AND MARSK-BY-THE-SEA URBAN DISTRICT COUNCIL.

## DEMOLITION OF 14 HOUSES.

## SPOUT WYND CLEARANCE AREA NO. 1, MARSK-BY-THE-SEA.

TENDERS are invited from experienced demolition contractors for the DEMOLITION of 14 HOUSES in SPOUT WYND and HIGH STREET, Marsk-by-the-Sea.

General Conditions, Specification and Tender Forms are available from Engineer and Surveyor, Council Offices, Saltburn-by-the-Sea, Yorks.

Tenders, in plain sealed envelopes, endorsed "Demolition—Sput Wynd," should be returned to the Clerk of the Council not later than Noon on FRIDAY, the 6th January, 1961.

The Council does not bind itself to accept the lowest or any Tender.

L. E. HORGAN,  
Clerk of the Council.

Council Offices,  
Saltburn-by-the-Sea,  
Yorkshire.

1st December, 1960.

## NORTH - WEST METROPOLITAN REGIONAL HOSPITAL BOARD.

## SLOUGH HOSPITAL, WEXHAM PARK.

The Board intends shortly to invite TENDERS for the MECHANICAL ENGINEERING SERVICES INSTALLATION for the ABOVE NEW HOSPITAL.

The work will include the Supply and Installation of Oil-fired Steam Boiler Plant, Steam and Condensate Mains, Hot Water and Low Pressure Heating Calculators and Circulating Pumps, Hot and Cold Water Services, Heating Installation, Mechanical Ventilation Plant, Kitchen and Sterilising Equipment, etc.

The work is to be carried out in accordance with the Drawings and Specifications prepared by Messrs. J. Roger Preston and Partners, Consulting Mechanical Engineers, 15 North Audley Street, London, W.1.

Contractors who wish to be included in a list of firms from which a number will be selected to be invited to tender, should make application to the Secretary, NORTH-WEST METROPOLITAN REGIONAL HOSPITAL BOARD, 40 Eastbourne Terrace, London, W.2, not later than 31st JANUARY, 1961.

Only contractors having experience in carrying out large-scale contracts should apply, and applicants must give particulars of individual jobs not under £20,000 each in value, which they have completed within, say, the last five years, together with the names and addresses of not less than two professional engineers under whose supervision the work was done.

## SUFFOLK AND IPSWICH FIRE AUTHORITY.

## TENDERS FOR SUPPLY OF UNIFORM AND EQUIPMENT.

190 Double-breasted Fire Tunics.

290 Pairs Fire Trousers (NOTE: To Cloth 771A).

195 Pairs Firemen's Black Shoes.

18 Pairs Officers' Black Shoes.

95 Firemen's Caps.

90 Firemen's Overall Jackets.

95 Pairs Bib-and-Brace Overall Trousers (Firemen's).

50 Pairs Firemen's Black Leggings.

85 Pairs Rubber Knee Boots with Stout Leather Insoles.

45 Firemen's Raincoats.

12 Officers' Raincoats.

248 Firemen's Black Ties.

36 Officers' Black Ties (Superior Quality).

630 Leather Belts.

249 Firemen's Tunic Shirts (Colour—Standard R.A.F. Blue with Two Collars to each shirt).

54 Officers' White Shirts (Tenders to include Dri-dry Shirts).

12 Firewomen's White Shirts.

108 Officers' White Semi-stiff Collars.

24 Firewomen's White Semi-stiff Collars.

162 Pairs Firemen's Navy Blue Socks.

257 Pairs Cashmere, Nylon or similar Blue Socks.

155 Firemen's Serge Jackets (see special note in Specification).

2 Firewomen's Jackets and Skirts (made to measure).

1 Firewoman's Raincoat, with Loose Lining.

Details of the above, together with full Conditions of Contract from the Chief Fire Officer, Suffolk and Ipswich Fire Service, 1 Rose Hill Crescent, Ipswich, Suffolk.

It is a condition of Tender that prices shall be subject to any variation in force at time of delivery. Tenders, in plain sealed envelopes, marked "Uniform" and "Fire Service," should be sent to the undersigned by 25th JANUARY, 1961. It is important that all tenders should be accompanied by samples of the articles concerned. In the cases of clothing items, should the appropriate materials will be sufficient. The Authority does not bind itself to accept the lowest or any Tender.

G. C. LIGHTFOOT,  
Clerk of the Fire Authority.

County Hall,  
Ipswich.



## CONTRACTS

## BOROUGH OF BEXLEY.

## TENDERS FOR PRIVATE STREET WORKS.

TENDERS are invited for MAKING-UP the FOLLOWING PRIVATE STREETS: Parkwood Road; Camden Road; Margaret Road; Coronation Close; Horsham Road (Parts). The work comprises Kerbing and Channelling, to existing Sewers, Reshaping Carriageways, Hardcore Foundations, and Bituminous Macadam Surfacing. Drawings may be seen at, and Tender documents obtained from, the Office of the Borough Engineer, West Lodge, Broadway, Bexleyheath, Kent, on payment of a deposit of £2 2s., which will be refunded on receipt of a bona-fide Tender not subsequently withdrawn. Tenders must be delivered to the undersigned not later than 12 Noon on MONDAY, 9th January, 1961. The Council do not bind themselves to accept the lowest or any Tender.

ARTHUR GOLDFINCH,  
Town Clerk.

Council Offices,  
Broadway,  
Bexleyheath,  
Kent.

## BOROUGH OF BRIDPORT.

## WEST STREET CAR PARK.

## DEMOLITION AND CLEARANCE OF BUILDINGS AND EXTENSION OF CAR PARK.

The COUNCIL are prepared to consider TENDERS for the DEMOLITION AND CLEARANCE OF Three cottages and a Warehouse BUILDING, together with an EXTENSION OF THE CAR PARK, SUPPLY AND LAYING of approx. 3,200 sq. yd. of BITUMINOUS MACADAM SURFACE, DRAINAGE, FENCING, LIGHTING and ancillary works. Form of Tender, Specification and Bill of Quantities may be obtained upon application in writing, together with a deposit of £1 1s. (One Guinea), from the Borough Engineer, Municipal Offices, South Street, Bridport. Tenders should be returned to the undersigned in a plain sealed envelope, endorsed "West Street Car Park Extension and Demolition," not later than SATURDAY, 31st December, 1960. The Council are not bound to accept the lowest or any Tender.

F. C. M. FORWARD,  
Town Clerk.

Municipal Offices,  
Bridport.

1st December, 1960.

## BOROUGH OF CAMBERWELL.

## PERIOD CONTRACTS.

## TENDERS invited for the FOLLOWING:—

- (a) Tar and Bitumen Coated Stone, Asphalt Paving Materials, Bitumen Emulsion and Tar.
- (b) Ballast, Sand, Flint Grit and Gravel, Crushed Granite, Dry Mix Mortar, Ashes.
- (c) Granite Kero, Plaster, Plasterboard, Bricks, York Paving, Artificial Stone Paving Cement, Glazed Stoneware Pipes and Fittings, Street Gutters, Gully Grates, Manhole Covers.
- (d) Road Studs, Dust Skips, Dustbins, Shovels, Danger Lamps, Chain Link Fencing, White Plastic Road Markings.
- (e) Lubricating Oil, Fuel Oils.
- (f) Cleaning Materials, Disinfecting Powder, Toilet Paper, Cigarette Dust Sheets, etc.
- (g) Brooms, Brushes.
- (h) Uniforms, Protective Clothing, Boots, Boot Repairs.
- (i) Electric Lamps.
- (j) Removal of Street Refuse and Excavation.
- (k) Sale of Broken Paving.
- (l) Sale of Office Wastepaper, Old Books, etc.
- (m) Asphalt Paving Works.
- (n) Hire of Mechanical Plant.
- (o) Ironmongery.
- (p) Electric Cables, Conduit and Fittings.
- (q) Sale of Old Granite Setts.
- (r) Glass, Wallpaper, Painters' Sundries.

Tender Forms from BOROUGH ENGINEER AND SURVEYOR, Town Hall, Camberwell, S.E.5. Closing date, 6th JANUARY, 1961.

## OUNDE URBAN DISTRICT COUNCIL.

## SEWERAGE AND SEWAGE DISPOSAL.

TENDERS, on a Fixed-price Basis, are invited from suitably experienced contractors for the LAYING of approx. 5,000 yd. of SPUN-IRON, CONCRETE and STONEWARE SEWERS and Rising Mains of 15in., 12in. and 9in. dia., the Construction of Sewage Disposal Works consisting of Settlement, Humus and Storm Tanks, Percolating Filters, Two Sewage Pumping Stations, the Laying of House Drainage Connections, and the Reinstatement of Road Surfaces. Drawings may be seen at the Offices of the Council's Consulting Engineers, PICK, EVERARD, KEAY AND GIMSON, 6 Millstone Lane, Leicester, from whom the Specifications and Bills of Quantities may be obtained on payment of a deposit of Five Guineas, which will be returned on receipt of a bona-fide Tender and the return of all documents supplied.

Tenders, on the loose form and in the envelope provided, are to be delivered to the undersigned not later than Noon on 20th JANUARY, 1961. The Council do not bind themselves to accept the lowest or any Tender.

J. FORD,  
Clerk of the Council.

Council Offices,  
6 North Street,  
Oundle,  
Near Peterborough,  
Northants.

## RURAL DISTRICT OF ROCHFORD.

## TENDERS are invited for the SUPPLY of the FOLLOWING:

- (a) One Track Appliance with Hydraulic Dozer Blade and Diesel Engine, fitted with Cab.
- (b) Two Karrier Refuse Vehicles with Double Cabs and Rovers Two-stroke Diesel Engines, 22.30 cu. yd. or 25 cu. yd. body.

Tender Forms and Conditions of Contract may be obtained from the undersigned. Tender for Refuse Vehicles and/or "Track Appliance," and be delivered to the undersigned not later than 12 Noon on MONDAY, 2nd January, 1961.

No Tender will be received except in the special envelope provided which must be sealed and shall not bear any name or mark indicating the sender. The Council do not bind themselves to accept the lowest or any Tender.

B. C. HARRIS,  
Clerk of the Council.

Council Offices,  
Rochford, Essex,  
8th December, 1960.

## CONTRACTS

## HOLLAND (LINC.) COUNTY COUNCIL.

## DEMOLITION OF PREMISES AT JUNCTION OF HIGH STREET AND CHURCH STREET, SPALDING.

TENDERS are invited for the DEMOLITION of SHOP and WAREHOUSE PREMISES at Junction of High Street and Church Street, Spalding. Contract documents may be obtained on application to the County Surveyor, County Hall, Boston. Tenders, in the endorsed envelope provided, must reach the undersigned not later than 12 Noon on FRIDAY, 6th January, 1961.

The County Council do not bind themselves to accept the lowest or any Tender.

H. A. H. WATER,  
Clerk of the County Council.

County Hall,  
Boston, Lincs.

## BOROUGH OF BRIDPORT.

## SKILLING HOUSING SITE—DEMOLITION AND CLEARANCE OF SLAUGHTERHOUSE.

The COUNCIL are prepared to consider TENDERS for the DEMOLITION AND CLEARANCE OF the SLAUGHTERHOUSE at SKILLING HOUSING SITE, together with ancillary works. Form of Tender, Specification and Schedule of Work may be obtained upon application in writing, together with a deposit of £1 1s. (One Guinea), from the Borough Engineer, Municipal Offices, South Street, Bridport. Tenders should be returned to the undersigned in a plain sealed envelope, endorsed "Skillington Slaughterhouse," not later than SATURDAY, 7th January, 1961. The Council are not bound to accept the lowest or any Tender.

F. C. M. FORWARD,  
Town Clerk.

Municipal Offices,  
Bridport.

1st December, 1960.

## BOROUGH OF SUTTON AND CHEAM.

## PROPOSED MALDEN ROAD HOUSING SCHEME.

The COUNCIL invites TENDERS, on a Firm-price Basis, for the ERECTION OF 36 LIVING UNITS in One- and Two-storey Construction, on TWO SITES, which are about 40yd. apart, in one combined Contract as follows: Site off Malden Road—Phase I: Roadworks and Erection of 10 Flats in Two Storeys and Five Houses in Two Storeys; Phase II: Demolition of Cottages and Erection of Five Bungalows. Site at rear of St. Dunstan's Rectory—Phase III (to run concurrently with Phase I or I and II): Roadworks and Erection of Eight Flats in Two Storeys and Eight Bungalows.

Bill of Quantities and Form of Tender may be obtained on application to MR. C. NEEDHAM, M.I.C.E., M.I.Mun.E., A.M.I.Struct.E., Borough Engineer and Surveyor, Municipal Offices, High Street, Sutton, Surrey, on payment of a deposit of £2 2s. which will be returned on receipt of a bona-fide Tender and all documents, etc., supplied. Cheques should be crossed and made payable to the Sutton and Cheam Borough Council.

All applications for Bill of Quantities and Form of Tender must be received not later than 20th DECEMBER, 1960. No application will be accepted after that date. The documents for tendering will be sent out on or about 2nd January, 1961.

Drawings and Conditions of Contract may be inspected at the Office of the Borough Engineer and Surveyor by all persons who have made the necessary application to tender.

Tenders, on the prescribed form, in the envelope provided, bearing no indication of the name of the tenderer, and endorsed "Tender for Malden Road Housing Scheme," must be delivered at the Office of the undersigned not later than 12 Noon on MONDAY, the 30th January, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

A. PRIESTLEY,  
Town Clerk.

Municipal Offices,  
Sutton,  
Surrey.

2nd December, 1960.

## BOROUGH OF WOOD GREEN.

## TENDER FOR PERIODIC SUPPLIES AND EXECUTION OF WORKS.

The COUNCIL invite TENDERS for the SUPPLY OF MATERIALS and the EXECUTION OF WORKS for periods of one, two or three years commencing 1st April, 1961, as follows:—

- (1) Cold Black Asphalt.
- (2) Stoneware Pipes.
- (3) Portland Cement.
- (4) Fuel Oil.
- (5) Masons' and Pavlois' Works.
- (6) Asphalt Works to Footways.
- (7) Petroleum Spirit and Derv Fuel.
- (8) Window Cleaning.
- (9) Mechanical Tarring.
- (10) Tarmacadam.
- (11) Coke.
- (12) Ballast and Sand.
- (13) Mechanical Gully Cleansing.
- (14) Cartage of Clinker, etc.
- (15) Office Cleaning.
- (16) Electric Lamps (including those for Street Lighting Purposes).

Tenders must be on the official forms, which may be obtained at the Borough Engineer and Surveyor's Office at the Town Hall.

Tenders, in plain sealed envelopes, bearing the words "Tender for..." but no name or mark indicating the sender, must be delivered to the undersigned not later than Noon on FRIDAY, 6th January, 1961.

G. W. PLATER,  
Town Clerk.

Town Hall,  
Wood Green, N.22.

8th December, 1960.

## CITY OF ST. ALBANS.

## RECONSTRUCTION OF UPPER LATTIMORE ROAD.

TENDERS are invited for the RECONSTRUCTION OF the CARRIAGEWAY ONLY of part of Upper Lattimore Road.

The work comprises Excavation for, and Laying approx. 850 sq. yd. of Reinforced Concrete Foundation and Asphalt Surfacing.

Tender documents may be obtained on application to the City Engineer and Surveyor, 16 St. Peter's Street, St. Albans.

Tenders are to be returned to the undersigned not later than Noon on WEDNESDAY, 28th December, 1960.

B. V. ENTWISTLE,  
Town Clerk.

38 St. Peter's Street,  
St. Albans,  
Herts.

## CONTRACTS

## COUNTY BOROUGH OF SOUTHAMPTON.

Taylor Jumbo MOBILE CRANE, Series 50, 4 tons capacity, REQUIRED. Tender Forms obtainable from Borough Engineer, Civic Centre, Southampton, to be delivered to the TOWN CLERK by Noon, 22nd DECEMBER, 1960.

## BOROUGH OF DAGENHAM.

## CONTRACTS AND SUPPLIES, 1961-62.

TENDERS are invited for the FOLLOWING GOODS and SERVICES for the year commencing 1st April, 1961:—

- (1) Ready Mixed Concrete.
- (2) Ironmongery.
- (3) Oilman's Sundries, Soaps and Cloths.
- (4) Paint, etc.
- (5) Lubricating Oils, Greases, etc.
- (6) Brooms, Scavenging, etc.
- (7) Brushes.
- (8) Iron Castings.
- (9) Sundry Building Materials.
- (10) Tarmacadam.
- (11) Hire of Agricultural Plant.
- (12) Plumbing Materials, etc.
- (13) Cold Emulsion.
- (14) Ballast, Sand, Shingle.
- (15) Lime and Cement.
- (16) Bricks.
- (17) Stoneware Pipes and Fittings.
- (18) Laundering.
- (19) Disinfectant.
- (20) Coal and Coke.
- (21) Hire of Engineering Plant.
- (22) Protective Clothing.
- (23) Blacksmiths' Work.
- (24) Concrete Manholes, Pipes and Gullies.
- (25) Motor Spirit, Kerosene, etc.
- (26) Mastic Asphalt, Bitumen Macadam—Burning off, etc.
- (27) Uniform Clothing.
- (28) Electric Lamps.
- (29) Precast Concrete Kerb.
- (30) Precast Concrete Paving Slabs.
- (31) Cold Asphalt (Supply only).
- (32) Boot Repairs.
- (33) Salt for Water Softening.
- (34) Hire of Lorries and Vans.
- (35) Cold Asphalt (Mechanical Laying).
- (36) Plan Printing Materials.
- (37) Milk (Cows).
- (38) Supply of Tyres and Tubes.
- (39) Hire of Tubular Steel Scaffolding.

Forms of Tender (No. of form to be quoted) are obtainable from the Borough Engineer and Surveyor on application accompanied by a stamped addressed foolscap envelope.

Tenders, in the envelope provided, should be returned by Noon on 7th JANUARY, 1961.

KEITH LAUDER,  
Town Clerk.

Civic Centre,  
Dagenham.

## BOROUGH OF RAMSGATE.

## CLIFF PROTECTION WORKS—WEST CLIFF CHINE.

FIXED-PRICE TENDERS are invited from experienced contractors for the CONSTRUCTION OF CLIFF PROTECTION WORKS, comprising the Excavation for, and the Construction of, 10 Reinforced Concrete Buttresses and Concrete Block Walling varying between 20ft. and 40ft. in height, together with ancillary work. The Conditions of Contract, Specification, Bill of Quantities and Form of Tender may be obtained from the Borough Engineer and Surveyor, Municipal Buildings, Ramsgate, upon payment of £2 2s., which will be returned upon receipt of a bona-fide Tender not subsequently withdrawn.

Tenders, in a plain sealed envelope not bearing any name or mark indicating the sender, but endorsed "Cliff Protection Works—West Cliff Chine," must reach the undersigned by not later than 12 Noon on 28th DECEMBER, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

K. F. SPEAKMAN,  
Town Clerk.

Municipal Buildings,  
Ramsgate.

2nd December, 1960.

## CITY OF PETERBOROUGH.

## CONSTRUCTION OF 423 LIN. YD. OF 7 1/2in. DIA RISING MAIN—EYE ROAD.

Details available from City Engineer. TENDERS to be returned by 28th DECEMBER.

C. PETER CLARKE,  
Town Clerk.

Town Hall,  
Peterborough.

December, 1960.

## CITY OF CARLISLE.

## KINGSTOWN ROAD JUNCTION A.7-A.74.

TENDERS are invited for the ABOVE. The work comprises the Laying of approx. 320 yd. of Kerb, 1,200 sq. yd. of Roadwork comprising 12in. all in aggregate, 9in. Pitching and 4in. Bituminous Macadam Surfacing, the Provision of S.W. Drainage and Street Lighting Signs.

Particulars from City Surveyor, 18 Fisher Street. Closing date: 20th DECEMBER, 1960.

H. D. A. ROBERTSON,  
Town Clerk.

## ESHER URBAN DISTRICT COUNCIL.

## CONTRACT NO. 312.

## CAR HARDSTANDINGS AT GARAGE SITES—SITE WORKS.

The Council invite TENDERS for the CONSTRUCTION OF CAR HARDSTANDINGS AND ACCESS ROADS TO GARAGES AT VARIOUS SITES within the Urban District.

The works comprise approx. 1,500 cu. yd. of Excavation, 175 sq. yd. of Reinforced Concrete and 3,000 sq. yd. of Hardcore and Hoggan Hardstandings, 500 lin. yd. of Kerbing and 100 lin. yd. of 6in. dia. Surface Water Sewers, together with ancillary works.

Form of Tender, Specification and Bills of Quantities may be obtained from the Engineer and Surveyor, Council Offices, Esher, upon payment of a deposit of £1 1s., which will be refunded on receipt of a bona-fide Tender together with the return of the documents in good condition.

Tenders, on the prescribed form, enclosed in the envelope provided, endorsed "Contract No. 312," and having no name or mark indicating the sender, must be received by not later than 5 p.m. on MONDAY, 2nd January, 1961.

FREDERICK EDWARDS,  
Clerk of the Council.

Council Offices,  
Esher.

1st December, 1960.



## CONTRACTS

## CITY OF WAKEFIELD.

## ANNUAL TENDERS, 1961-62.

The COUNCIL invite TENDERS for the SUPPLY of the UNDERMENTIONED MATERIALS, etc., during the year ending 31st March, 1962:—

- (1) Cement.
- (2) Cold Asphalt and Cold Emulsion.
- (3) Dustbins.
- (4) Haulage.
- (5) Heating and Planing of Carriageways.
- (6) Petrol and Diesel Oil.
- (7) Precast Concrete Kerbs and Flags.
- (8) Sand, Gravel and Roadstone Chippings.
- (9) Surface Dressing of Carriageways.
- (10) Tarmacadam and Bituminous Macadam.

Applications and Forms of Tender can be obtained on application to the City Engineer, Town Hall, Wakefield, and applicants are requested to state for which item or items they wish to tender.

Tenders must be received by the undersigned not later than TUESDAY, 24th January, 1961.

W. S. DES FORGES,  
Town Clerk.

Town Hall,  
Wakefield.

## CITY OF PORTSMOUTH.

TENDERS are invited for the SUPPLY and DELIVERY of 9,000 DUSTBINS, in various sizes, to the Cleansing and Haulage Department during the period of 10 months commencing 1st April, 1961.

Forms of Tender may be obtained upon application to the Supplies Officer, Central Depot, Eastern Road, Portsmouth, and Tenders must be returned to the undersigned, in the envelope provided, not later than 12 o'clock Noon on MONDAY, 19th December, 1960. The envelope must not bear any name or mark indicating the sender.

J. R. HASLEGRAVE,  
Town Clerk.

## FARINGDON RURAL DISTRICT COUNCIL.

## GREAT COXWELL AND LONGCOT SEWERAGE SCHEMES.

TENDERS (excluding Fluctuation Clause) are invited for FOLLOWING:

- (a) Great Coxwell—Laying approx. 1,140 lin. yd. of 6 in. dia. Sewers: Construction of Sewage Disposal Works; Lateral Connections and Drainage Works.
- (b) Longcot—Laying approx. 1,670 lin. yd. of 6 in. dia. Sewers: Construction of Sewage Disposal Works; Lateral Connections and Drainage Works.

The Council are undertaking the provision of sewage disposal facilities for other parishes in the district, and further schemes are expected to follow. Contractors wishing to tender should submit their names to the Council's Engineer and Surveyor (address below) by SATURDAY, 24th December, 1960, together with a deposit of £2 2s. which will be refunded if an application is not accepted, or on receipt of a bona-fide Tender.

The last date for the delivery of Tenders will be Noon on FRIDAY, 3rd February, 1961.

The Council will not bind themselves to accept the lowest or any Tender, and any acceptance is subject to the approval of the Ministry of Housing and Local Government.

C. D. READ,  
Clerk of the Council.

Council Offices,  
Market Place,  
Faringdon, Berks.  
7th December, 1960.

For Contracts received too late for  
classification see page 1309

## APPOINTMENTS VACANT

## NYASALAND.

## WATER DEVELOPMENT ENGINEERS.

Qualifications: Candidates must either have a University Degree, or equivalent, recognised by the Institution of Civil Engineers, together with two years' subsequent practical experience; or have passed, or be otherwise exempt from, Parts I and II of the Final Examinations of the Institution of Civil Engineers and have had not less than five years' practical experience.

Duties: Post "A"—to be responsible for survey, design and preparation of water development schemes, and may be required to take charge of a Divisional Organisation operating from a Provincial Office. Post "B"—to work independently on small irrigation schemes and be responsible, under the Director of Water Development, for the survey, design and construction of water control works.

Terms of Appointment: Permanent and pensionable, subject to satisfactory completion of probationary period, or on contract/gratuity terms for one year of three years.

Emoluments: If permanent, in Scale £1,035-£1,950; if contract, in Scale £1,270-£1,950.

Free passages. Generous home leave.

Apply DIRECTOR OF RECRUITMENT, Colonial Office, London, S.W.1. Give full name and age, and brief details of qualifications and experience. Quote BCD.140/4 02 D14.

## DOWNHAM RURAL DISTRICT COUNCIL.

## APPOINTMENT OF RESIDENT ENGINEER.

APPLICATIONS are invited for the APPOINTMENT of RESIDENT ENGINEER to supervise, under the direction of Consulting Engineers and the Council's Surveyor, the construction of sewerage schemes throughout the district. The appointment, subject to one month's notice on either side, in the first instance will be for a period of two years, with a good possibility of permanency for further schemes now in course of preparation.

The salary offered is £1,200 per annum, together with a travelling allowance on the essential user scale for a 10-h.p. car, and, if required, housing accommodation will be made available.

Applicants should have had extensive experience in a similar capacity dealing with schemes of a capital value in the region of £100,000.

Applications, stating age, qualifications and experience, together with the names of two referees, should be received by the undersigned not later than SATURDAY, 7th January, 1961.

A. B. HARRISON,  
Clerk of the Council.

Council Offices,  
London Road,  
Downham Market,  
Norfolk.

## APPOINTMENTS VACANT

## NORFOLK COUNTY COUNCIL.

## HIGHWAYS DEPARTMENT.

APPLICATIONS are invited for the UNDERMENTIONED APPOINTMENTS:

- (1) Engineering Assistant, Grade III/IV (£935-£1,310 p.a.) at Head Office, Norwich. Applicants should be Associate Members of the Institution of Civil Engineers, or hold an equivalent qualification by examination. They must be competent Surveyors, having had experience in design, setting-out and construction of roads.
- (2) Engineering Assistant, Grade II (£815-£960 p.a.) in County Roads Drawing Office, Norwich.

Preference will be given to candidates holding, or studying for the Examination leading to, Associate Membership of the Institutions of Civil Engineers, Municipal Engineers, or Highway Engineers.

The starting point on the salary scale in each case will be according to qualifications and experience.

For each post a motor car is essential, and the appointed officers will be paid an essential user's car allowance in accordance with the recommendations of the National Joint Council, as adopted and applied from time to time by the County Council. Loans available for purchase if required.

The appointment will be on the permanent establishment of the Department, terminable by one month's notice on either side. The provisions of the Local Government Superannuation Acts, 1937 to 1953, apply. The successful candidates will be required to pass a medical examination. Grant towards removal expenses.

The National Joint Council Service Conditions apply in general.

Further particulars and Application Forms obtainable from the COUNTY SURVEYOR, County Offices, 100, High Street, Norwich, NOR 4/A. Latest date for completed Application Forms: 30th DECEMBER, 1960.

## HAMPSHIRE COUNTY COUNCIL.

LABORATORY ASSISTANT, A.P.T. I (£645-£815), RELEVANT FOR FENLAND ASSET POST at County Roads Laboratory, Winchester. Commencing salary according to qualifications and experience.

Candidates must have had experience in testing materials used in civil engineering or similar work. Separation allowances and assistance with removal expenses in approved cases.

Form of Application (send s.d.e.), returnable by 20th DECEMBER, from the CLERK OF THE COUNTY COUNCIL, The Castle, Winchester.

## BOROUGH OF DUNSTABLE.

## ENGINEERING ASSISTANT, A.P.T. II

APPLICATIONS are invited from suitably experienced persons for the post of ENGINEERING ASSISTANT on the staff of the Engineer and Surveyor, on Grade A.P.T. II (£815-£960 per annum).

The commencing salary will be according to qualifications and experience. Housing accommodation will be provided, if necessary, and 50 per cent. of removal expenses will be paid.

Applications, stating age, qualifications, previous appointments and experience, with the names and addresses of three referees, must be received by the undersigned not later than 17th DECEMBER, 1960.

JACK SMITH,  
Town Clerk.

Municipal Offices,  
High Street, North,  
Dunstable, Beds.  
20th November, 1960.

## BOROUGH OF ENFIELD.

## BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited from suitably qualified persons for the POST of ENGINEERING ASSISTANT, A.P.T. IV (£1,140-£1,310) plus London weighting.

The commencing salary to be fixed at a point within the Scale commensurate with qualifications and experience.

The successful applicant will be engaged on a relieving scheme for the Borough, estimated to cost £13m.

Housing accommodation may be made available in appropriate cases. The Council is also prepared to consider 100 per cent. advances to successful applicants for house purchase within the Borough.

Saturday mornings are normally free from duty. Application Forms, obtainable from H. D. PEAKE, M.Sc.(Eng.), M.I.C.E., Borough Engineer and Surveyor, 7 Little Park Gardens, Enfield, Middlesex, must be delivered to the undersigned as soon as possible.

CYRIL E. C. R. PLATTEN,  
Town Clerk.

Public Offices,  
Gentlemen's Row,  
Enfield, Middx.

## EAST GRINSTEAD URBAN DISTRICT COUNCIL.

## AMENDED ADVERTISEMENT.

## SURVEYOR'S DEPARTMENT.

APPLICATIONS are invited for the APPOINTMENTS HEREUNDER:

- (a) Senior Assistant Engineer within N.J.C. A.P.T. Grade III (£960-£1,140).
- (b) Building Inspector within N.J.C. A.P.T. Grade II (£815-£960).

Housing accommodation available if necessary.

Applicants for appointment (a) must be competent to prepare drawings, specifications and bills of quantities for road and drainage and building works, including setting-out, site supervision and measuring-up of contracts, and able to accept administrative responsibility; and for (b) must be competent in the enforcement of plans for compliance with the Building By-laws, and the inspection of all stages of works in progress, and experience in planning procedure will be an advantage.

Preference will be given to applicants for: (a) holding an Examination of one of the recognised professional institutions; and for (b) the Building Inspectors' Certificate of the Institution of Municipal Engineers, or equivalent.

Application Forms, obtainable from the Surveyor to the Council at the undermentioned address and returnable, ended: (a) Senior Assistant Engineer; (b) Building Inspector, to the undersigned by not later than First Post on WEDNESDAY, 28th December, 1960.

H. C. JONES,  
Clerk of the Council.

Council Offices,  
East Court,  
East Grinstead,  
Sussex.

## APPOINTMENTS VACANT

## NATIONAL COAL BOARD.

## NORTH EASTERN DIVISION.

CIVIL ENGINEERING ASSISTANT REQUIRED in Reconstruction Division Headquarters, Doncaster. Salary £1,150-£1,750. Applicants should have experience in design and construction of industrial buildings, structures and general civil engineering works; preferably Corporate Members of Institution of Civil Engineers, but Corporate Members of Institution of Structural Engineers, with suitable engineering experience, will be considered. Duties will include planning and design for the civil engineering works associated with major reconstruction schemes.

Apply to STAFF DEPARTMENT, 16 South Parade, Doncaster, by 16th DECEMBER (quote AA/576/A).

## LANCASHIRE COUNTY COUNCIL.

APPLICATIONS are invited for POSTS as TEMPORARY CLERKS OF WORKS in the County Surveyor's Department in the following categories:

- (1) A Clerk of Works for the Thelwell Bridge—a high-level viaduct with a steel superstructure carrying the Manchester Ship Canal Motorway over the Manchester Ship Canal near Warrington. Applicants should have had extensive experience with a structural engineering firm as foreman, or in an equivalent supervisory capacity in charge of the fabrication and erection of heavy bridge works. Rate of pay—£940 x 4/530 x 1/535—£1,095 plus 35s. per week lodging allowance; commencing salary according to experience.

The duration of the work is 18 months and the post carries a prospect of permanency.

- (2) Supervisory Clerks of Works for the Warrington-Preston length of the Birmingham-Preston Motorway. Applicants should have had extensive experience in a supervisory capacity on large highway projects and should have a thorough knowledge of either:

- (a) All modern methods of highway construction, including the use of heavy earthmoving equipment and the mechanical laying of granular materials and cement macadam.

- (b) bridge and/or civil engineering construction in steel, reinforced concrete (including prestressed concrete), brick and masonry, together with ancillary works;

in both cases including experience in setting-out and monthly measurements, and should preferably have had previous experience as Clerks of Works.

- (3) Non-graded Clerks of Works, with experience similar to that set out above, who are required as Assistants to the Supervisory Clerks of Works.

Rate of pay—£17 10s. per week plus 35s. per week lodging allowance; commencing salary according to experience.

- (3) Non-graded Clerks of Works, with experience similar to that set out above, who are required as Assistants to the Supervisory Clerks of Works.

Rate of pay—£17 10s. per week plus 35s. per week lodging allowance; commencing salary according to experience.

The duration of the work in Categories (2) and (3) is 2½ years.

All appointments are subject to the applicants being passed medically fit.

Applications, quoting Ref. 109/12, should be submitted by 24th DECEMBER, 1960, on a form obtainable from JAMES DRAKE, B.Sc., M.I.C.E., M.I.Mun.E., County Surveyor and Bridge-master, P.O. Box No. 9, County Hall, Preston.

## MATLOCK URBAN DISTRICT COUNCIL.

## DARLEY DALE SEWERAGE SCHEME.

## APPOINTMENT OF RESIDENT ENGINEER.

APPLICATIONS are invited for the ABOVE APPOINTMENT, to supervise the laying of rammed, salt-glazed ware and cast-iron sewers, the construction of four sewage pumping stations, and the installation of machinery, under the direction of the Council's Consulting Engineers, MESSRS. W. H. RADFORD AND SON.

The salary will be £1,500 per annum, and rental housing accommodation will be made available, if required.

Applicants must have been trained as civil engineers and have had experience in this type of work, which includes deep excavations, reinforced concrete structures, pressure pipelines, river crossings, etc. They should be thoroughly conversant with the duties of a resident engineer, including testing materials, pipe lines and water-retaining structures, checking the setting-out of works, checking reinforcement, measuring the works, keeping records, reporting progress, dealing with contractors' accounts, and dealing with public utility undertakers and other third parties.

The appointment is expected to start in March, 1961, and to last for approximately two years.

Applications, stating age, qualifications and experience, and the names of three persons to whom reference may be made, must be delivered to the undersigned not later than Noon on WEDNESDAY, 14th December, 1960.

J. OWEN HUNT,  
Solicitor and Clerk of the Council.

Town Hall,  
Matlock,  
Derbyshire.  
30th November, 1960.

## PETERLEE DEVELOPMENT CORPORATION.

## APPOINTMENT OF CLERK OF WORKS.

APPLICATIONS are invited for the APPOINTMENT of CLERK OF WORKS in the Chief Engineer's Department.

The starting salary will be dependent upon age, qualifications and experience, and will be on the Corporation's A.P.T. Grade II (£815-£960).

Applicants must have had considerable experience in the construction of roads and sewers, be thoroughly competent to supervise and measure works under construction, and should be conversant with the keeping of site records. Previous experience as clerk of works is essential.

The appointment, which is superannuable, is subject to the Corporation's Conditions of Service, and will be terminable by one month's notice on either side. The successful applicant will be required to pass a medical examination.

Applications, stating age, experience and qualifications, and giving the names of two persons to whom reference can be made, should reach the undersigned not later than TUESDAY, 3rd January, 1961. Housing accommodation will be made available, if required.

A. V. WILLIAMS,  
General Manager.

Shotton Hall,  
Old Shotton,  
Peterlee,  
Horden,  
Co. Durham.

## APPOINTMENTS VACANT

ROYAL COUNTY OF BERKSHIRE.  
DIVISIONAL SURVEYOR—HUNGERFORD DIVISION.  
A.P.T. V (£1,310-£1,480).

Applications are invited for the ABOVE APPOINTMENT on the staff of the County Surveyor, and candidates must be qualified by examination and experience.

Further details and Application Forms obtainable from Shire Hall, Reading, not later than THURSDAY, 22nd December, 1960.

## WEST SUFFOLK COUNTY COUNCIL.

Applications are invited for the APPOINTMENT of a JUNIOR ENGINEERING ASSISTANT on Grade A.P.T. I (£545-£815).

National Joint Council service conditions; post pensionable; medical examination. Appointment terminable by one month's notice, in writing, on either side.

Applicants must have had experience in drawing and the plotting of surveys and levels.

Application Forms may be obtained from, and the appointment be returned to, the COUNTY SURVEYOR, Manor House, Bury St. Edmunds, not later than 14th DECEMBER.

## BOROUGH OF EDMONTON.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

ENGINEERING MAIN DRAINAGE ASSISTANT (TEMPORARY).

Applications are invited for the ABOVE POST from suitably qualified and experienced persons. The appointment will be for a period of approx. 15 months. Salary G-grade A.P.T. III (£960-£1,140 p.a.) plus £45 London Weighting.

Applications, on forms obtainable from the TOWN CLERK, Town Hall, Edmonton, N.9, must be delivered by the 24th DECEMBER, 1960.

## MELTON AND BELVOIR RURAL DISTRICT COUNCIL.

APPOINTMENT OF CLERK OF WORKS (TEMPORARY).

Applications are invited from suitably experienced persons for the TEMPORARY POST OF CLERK OF WORKS to supervise housing schemes under the direction of the Council's Engineer and Surveyor. The estimated period of the appointment will be 18 months and the salary offered is £18 per week. The person appointed will be required to provide his own car, for which an allowance will be made on the National Scale.

Forms of Application and details of the appointment may be obtained from the Engineer and Surveyor, Warwick Lodge, Dalby Road, Melton Mowbray.

A. P. MARSH, Clerk to the Council.

Warwick Lodge, Dalby Road, Melton Mowbray, 2nd December, 1960.

**REQUIRED** immediately. First-class Man with complete knowledge of earthmoving machines and roadmaking machines. The position is one of utmost importance, and a good salary will be paid to the right man. Only one of absolute integrity and experience are requested to apply in confidence. Write Box V.3029, "The Contract Journal."

**COST CLERK REQUIRED.** London office expanding building company. Responsible to director for cost and analysis.—Apply own handwriting, stating age, experience, salary, to Box V.3040, "The Contract Journal."

**EXPERIENCED SITE ENGINEERS REQUIRED** by civil engineering contractors for roads, drainage and sewage disposal contracts in Berks., Bucks, and Oxon. The positions are permanent, with pension scheme, carry a substantial salary and offer exceptional prospects of advancement to higher grades in an expanding organisation. — Write in confidence, stating age, full details of experience, and past employers, to Box V.3103, "The Contract Journal."

**ASSISTANT ENGINEERS.** single, and preferably a qualified, REQUIRED for a 15-months' tour in Nigeria with an established civil engineering concern. Qualities expected are initiative, character and good health.—Written applications, in confidence, giving particulars of age, education, and experience to date, to HARBOUR AND GENERAL WORKS, 173 St. Stephen's House, Victoria Embankment, Westminster, S.W.1.

**RUDDOCK AND MEIGHAN, LTD.,** REQUIRE SITE AGENTS, FOREMEN AND ASSISTANT ENGINEERS for bridge and sewage works contracts in the London area. Permanent progressive posts for suitable applicants, with pension scheme, training, experience and salary required, to Burford House, Harrow View, Wealdstone, Middlesex.

## SOIL MECHANICS, LTD.

REQUIRE FOREMEN AND OPERATORS for site exploration, well installation, piling, grouting, drilling, etc. in their expanding business, for work at home and abroad. There are a variety of jobs for suitable applicants with varying degrees of experience in any or all the above classes of work. Applications will also be considered from experienced plant operators in the civil engineering industry who would be interested in being trained in any of the above operations. Applications should be made in writing, stating fully experience, age, mobility and availability, to:

The Contracts Manager,  
SOIL MECHANICS, LTD.,  
65 Old Church Street, London, S.W.3.

**BUILDERS' ESTIMATOR AND SURVEYOR WANTED** for Birmingham area. Applicants should have at least seven years' experience with building contractors. Must be conversant with up-to-date pricing for taking-off quantities and factory work. Capable of interim and final accounts, and the preparation and supervision of work. Only conscientious and energetic men need apply.—Write to Box V.3156, "The Contract Journal."

**SENIOR ESTIMATOR** for a leading building and civil engineering company with expanding organisation in West of England. Responsibilities will include preparing estimates for building and civil engineering works up to £500,000 in value, and the training and supervision of junior staff. The position is permanent and offers a good salary, superannuation and profit-sharing schemes. Assistance with accommodation can be provided.—Brief particulars should be sent to Technical Manager JOHN KNOX (BRISTOL), LTD., Winterstoke Road, Bristol, 3.

## APPOINTMENTS VACANT

**SENIOR SURVEYOR REQUIRED** by subsidiary of national contractors in London. Must be fully experienced in handling large civil engineering and building contracts at all stages to final account. Salary commensurate with ability, 5-day week. — Write, stating age, previous experience, etc., to Box V.3067, "The Contract Journal."

**BORDER ENGINEERING CONTRACTORS, LTD.** SENIOR AGENT REQUIRED for mainlaying department of the company. The applicant should be an active and capable man, with drive, initiative and organising qualities, who has had extensive experience in the installation of C.I. and M.S. pipelines and ancillary works thereto. This is a permanent staff appointment, with pension and good remuneration. Apply in confidence, stating age and full particulars, to the Managing Director, 125 Queen Street, Whitehaven.

## ENGINEER/AGENTS AND ENGINEER/SUB-AGENTS

Men between 30 and 45 years of age are invited to apply for posts in the provinces on major works now being carried out by a national firm of building and civil engineering contractors. Applicants must be experienced in reinforced concrete structures, including those of an intricate nature, and be able to show that they have held top positions in this field. They must also be capable of controlling staff. Salary will be in the region of £2,000 per annum, according to experience.—Apply in writing, giving details of experience, age and previous employers, which will be treated in strict confidence, to:

BOX V.3190, "THE CONTRACT JOURNAL."

**QUANTITY SURVEYORS.** — Experienced Quantity Surveyors (Two) REQUIRED by major firm of building and civil engineering contractors initially for large steam power station contract in Yorkshire, and for extensive hydro-electric project near Oban, Argyllshire. These appointments will be permanent, with good salary and conditions, and entry into superannuation scheme after 12 months' service. Applications, giving details of training and experience, will be treated in strictest confidence, and should be addressed to THE MITCHELL CONSTRUCTION CO., LTD., "S" Dept. What Works, Peterborough.

**ASSISTANT ESTIMATOR.**—Vacancy with manufacturers of chain link fencing, steelwork and gates. Commencing salary approx. £13 per week, according to experience. Knowledge of trade essential, and draughtsmanship useful. Five-day week. Pension scheme.—Applications in writing to PROVE BROS., LTD., 126 Rickmansworth Road, Watford, Herts.

**CIVIL ENGINEERS.** — Junior and Senior Civil Engineers are REQUIRED in connection with heavy civil engineering design work at Newcastle upon Tyne and for supervision of work in course of construction in Northumberland and in Nottinghamshire. CIVIL ENGINEERING INSPECTORS are also REQUIRED for work at these sites. Applications, by letter in the first instance, should be addressed to MERZ AND McLELLAN, Consulting Engineers, Carlisle House, Newcastle upon Tyne, 1, quoting Ref. SAR.

## FREDERICK S. SNOW AND PARTNERS

Consulting Engineers, have vacancies for permanent staff in an expanding organisation at their new well-appointed London office for the following: QUALIFIED CIVIL AND STRUCTURAL ENGINEERS ASSISTANT CIVIL AND STRUCTURAL ENGINEERS R.C. DETAILERS STRUCTURAL STEEL DETAILERS ARCHITECTS AND QUANTITY SURVEYORS TRACERS.

In connection with varied and interesting projects in Great Britain and overseas. Salaries offered according to qualifications and experience. Superannuation scheme. Luncheon vouchers. Five-day week.—Apply, in writing, stating age, qualifications and experience, to:

FREDERICK S. SNOW AND PARTNERS, "Ross House," 144 Southwark Street, London, S.E.1.

**ELECTRICIAN,** preferably qualified, O.N.C. standard, for plant department based at Kingston, Surrey. Must be fully conversant with building site requirements, tower cranes, electric motors and electrical plant repairs. Able to drive. Excellent conditions of employment for intelligent, active man, able to start new department.—Please write full details in strictest confidence to Box V.3169, "The Contract Journal."

**REQUIRED** in the New Year, ASSISTANT QUANTITY SURVEYOR of intermediate to final standard, capable of taking-off and dealing with final accounts. Good opportunity for widening experience. Westminster office, 5-day week; luncheon vouchers; bonus scheme.—Write, stating experience, and salary required, to Box V.3157, "The Contract Journal."

## WIMPEY

Vacancies for DRILLING SUPERINTENDENT and DIAMOND DRILLERS for site investigations.

(a) DRILLING SUPERINTENDENT For supervision and organisation of rock drilling contracts.

(b) DIAMOND DRILLERS To operate drills on rock drilling contracts. Applicants for (a) must have extensive and practical experience of diamond drilling, be conversant with all aspects of this type of work, and be prepared to travel widely in U.K. and for short periods overseas. Applicants for (b) must have wide experience of rock coring and coring drilling records. They must be prepared to travel anywhere in U.K. Overseas tours available to men of approved ability.—Write, giving age and experience, to:

GEORGE WIMPEY AND CO., LTD., Springfield Road, Hayes, Middlesex.

**ESTIMATOR REQUIRED** for small but expanding civil engineering company in South-East. This appointment is an excellent opportunity for the right man to be No. 1 in his field, with a department, although small at present, having a sound backing. General experience in roads, sewers, sewage disposal and general civil works required.—Applications, with full details of age, training and experience, to THE WINGHAM ENGINEERING CO., LTD., Wingham, Canterbury, Kent.

**ENGINEER/AGENTS REQUIRED** for civil engineering contracts in London and the South of England. Apply, giving full details of experience, to CAFFIN AND CO., 25 Craven Street, W.C.2.

## APPOINTMENTS VACANT

**AGENTS/REPRESENTATIVES REQUIRED** all areas, including North London, for sale of revolutionary solution for dissolving concrete on shutters, etc. A "must" for every builder and contractor's site or yard. Details of experience, etc., areas covered, to Secretary, PLANT LAUNDRIES, 83 Heath Road, Weybridge, Surrey.

**CHARGEHAND/FITTER.** Must be fully experienced with plant with steam and diesel and conversant with large excavators, derricks and piling equipments, for contract situated in Great Ouse area.—Apply SIR LINDSAY PARKINSON AND CO., LTD., Temple Newsam, Halton, Leeds, 15.

**COST AND BONUS CLERK REQUIRED** for large building contract in Midlands area. Must be fully experienced in measuring, unit costing and bonus assessments.—Reply, stating age and experience, to M. J. GLEESON (CONTRACTORS), LTD., C.E. Dept., Hareton House, London Road, North Chesham, Surrey.

## THE POWER-GAS CORPORATION, LTD.

(A member of the Davy-Ashmore Group) invite applications for the following posts:—

**A CIVIL ENGINEER.** To take charge of work at site for plant for projects for heavy industry. Applicants must: (i) have experience with civil engineering contractors on the control and organisation of work at site and knowledge of costing and estimating processes; and (ii) from the designs prepared in the company's offices must be able to co-ordinate the preparation and issue of contract documents, work at site, and arrange final settlement and payment. Living-out allowance is payable, and a car provided whilst on location.

**DESIGNER.** For reinforcing concrete foundations and retaining works for plant for extensive projects for heavy industry. The work is varied and interesting. Candidates should be qualified at H.N.C. level, with endorsement for membership of the Institution of Civil Engineers. Five-day week. There are prospects of promotion in both these posts. Life assurance and pension schemes in operation, and assistance will be given with housing.—Apply to:

The Personnel and Training Manager,  
THE POWER-GAS CORPORATION, LTD.,  
P.O. Box 21, Stockton-on-Tees.

**QUANTITY SURVEYORS.**—Applications are invited from Senior and Assistant Quantity Surveyors, preferably with site experience, for work in the interesting field of nuclear power station construction. Good salaries and allowances are offered.—Please write, giving details of previous experience, to Mr. J. Winter, Business Manager, NUCLEAR CIVIL CONSTRUCTION, Trawsfynydd, Merionethshire.

**CIVIL ENGINEERS,** preferably qualified, REQUIRED by civil engineering contractors engaged in the construction of impounding reservoirs, sea defence works, large-diameter pipelines, trunk sewers, tunnels, and other works of heavy construction, for site work in the Midlands and in the North of England. Applicants should have had some previous site experience and be capable of taking the responsibility of supervising contracts immediately or within a short time of appointment. It is envisaged that persons between the ages of 25 and 35 years of age would be suitable and who would be of necessity mobile. Appointments carry attractive salaries and offer considerable scope for advancement in an expanding organisation. — Apply, giving details of age, qualifications and experience, to LEHANE, MACKENZIE AND SHAND, LTD., Matlock, Derbyshire.

## CIVIL ENGINEER—SOIL MECHANICS

**FOUNDATION ENGINEERING, LTD.,** a company in the Richard Costain Group, have a vacancy for a CIVIL ENGINEER to take control of soil mechanics contracts. Duties will include contacting clients, organising and supervising site investigation, and writing technical reports. Excellent prospects in a rapidly expanding area of specialisation. Applications are invited from qualified civil engineers who have experience in soil mechanics and foundation work. Engineers or geologists who would like to enter this field will also be considered.—Please write to:

Personnel Manager (F/1),  
RICHARD COSTAIN, LTD.,  
111 Westminster Bridge Road, London, S.E.1.

**SITE ENGINEER REQUIRED** for large industrial construction in Hampshire. Age about 25; with some site experience. Opportunity for advancement to energetic man. Bonus and pension scheme.—Write Box V.3066, "The Contract Journal."

**JUNIOR CIVIL ENGINEER REQUIRED** by PILING AND CONSTRUCTION, LTD., a company in the Richard Costain Group. The appointment will appeal to young men aged 20-25 who enjoy responsible supervisory work and travelling about the country. Candidates should hold O.N.C. qualifications and must be proficient in the use of instruments.—Please write to Personnel Manager (T/1), 111 Westminster Bridge Road, London, S.E.1.

**PLANT SALESMAN.** — J.C.B. distributor has a vacancy for a Salesman capable of earning a four-figure salary. This is a unique opportunity to join a rapidly expanding company engaged in the sale and service of contractors' earthmoving plant. Car provided.—Apply in strictest confidence to GILBERT HOWELL, West Street, Earl Shilton, Leicester.

## SITE MEASURING SURVEYOR

REQUIRED for work on civil engineering contract at Hunston nuclear generating station, Ayrshire, Age approx. 21 to 30 years. Should have had previous site experience and knowledge of standard methods of measurement.—Applicant should hold Ref. 174, should give full details of age, experience and qualifications, if any, to:

Contract Labour Department,  
SIMON-CARVES, LTD.,  
Cheadle Heath, Stockport.

**FULLY experienced AGENT REQUIRED** for new building contracts in the N.W. Region. Conversant in r.c. frame construction. Pension scheme in operation.—Write for full particulars salary required, to LOWTON CIVIL ENGINEERING, LTD., Lowton St. Mary's, near Warrington, Lancs.

**ASSISTANT ENGINEERS,** age 20-30, REQUIRED for tunnel contracts in London. Experience in tunnel survey and setting-out desirable.—Apply to KINNEAR, MOODIE AND CO., LTD., 299 Rither Green Lane, S.E.13.



## APPOINTMENTS VACANT

**W. A. DAWSON, LTD.**, have vacancy for experienced **SITE ENGINEER**, with opportunity for promotion to Agent. Must be willing to travel and work wherever required.—Apply, stating experience, qualifications, and salary required, to W. A. Dawson, Ltd., Sundon Park, Luton.

**ASSISTANT SURVEYORS**, for building contractors' office and sites. **REQUIRED** immediately.—**H. J. AND A. WRIGHT, LTD.**, High St., Great Missenden, Bucks.

**DOWSETT ENGINEERING CONSTRUCTION, LTD.** **SENIOR AGENT**.—Applications are invited for the appointment of a Senior Agent in the pipelines division in the company. The person appointed will be well experienced in the construction of C.I. and M.S. pipelines, and the civil engineering work ancillary thereto, and will possess the drive, initiative and organising ability necessary for the successful completion of this type of contract. The appointment will carry a salary and conditions of employment commensurate with the high standards called for.—Letter of application to Manager, Pipelines Division, Dowsett Engineering Construction, Ltd., Dowsett House, Durham Road, Gateshead-on-Tyne, 6.

## EXPERIENCED AGENT

**REQUIRED** for large-diameter steel main contract. Preference given to qualified engineer possessing a general experience of heavy civil engineering work, with a minimum of three years' experience as Agent. Write, giving fullest details, to:

**BOX V.3159, "THE CONTRACT JOURNAL."**

**SERVICE MANAGER** **REQUIRED** by important contractors' plant specialists. Must be qualified Engineer, conversant with all types of plant, and particularly tower cranes, able to control and direct service engineers and erectors. Based London, but prepared to travel extensively in U.K.—Applications in writing, with full details of age, experience, and salary required, to Box V.3205, "The Contract Journal."

**PLANT MANAGER** **REQUIRED** for civil engineering and building contractors. Applicants must be able to prove successful background with the larger type of contractor, in a senior executive position. Applicant with Engineering Degree or qualifications preferred. Must be familiar with all types of civil engineering equipment and experienced in designing plant layout and special equipment for all types of projects. This appointment offers scope for experienced and ambitious Plant Manager, able to run a large department in liaison with senior technical staff. Applicants should write fullest details, together with an indication of salary required, to Box V.3206, "The Contract Journal."

**QUANTITY SURVEYOR** **REQUIRED** by British building and civil engineering contractor, to assist senior Quantity Surveyor on major contract near Nairobi, Kenya.—Write Box CJ126, LPE, 60/62 St. Martin's Lane, London, W.C.2.

## THE J. I. CASE COMPANY, LTD.

**REQUIRED** at their West Drayton head office a **SALES CORRESPONDENT** able efficiently to deal with routine sales matters. He should be conversant with earthmoving equipment and a first-class correspondent.—Reply to:

The Sales Manager,  
**J. I. CASE COMPANY, LTD.**,  
Mill Road, West Drayton, Middlesex.

**SINDALL CONCRETE PRODUCTS, LTD.**, **REQUIRE:** (1) **REINFORCED CONCRETE DESIGNER/ DRAUGHTSMAN** for patent stairs, balconies, etc., and other simple design; (2) **FOREMAN ERECTOR** for patent reinforced concrete floor and roof construction. Preference given to tradesmen with knowledge of formwork and shuttering, and experience in handling precast concrete flooring unit construction. Good wages and conditions. Travelling generally within 40 miles radius of Cambridge.—Write, giving particulars of age, experience, and other relevant details, to Sindall Concrete Products, Ltd., 347 Cherry Hinton Road, Cambridge.

**WAGES/COST CLERKS**.—Experienced men are **REQUIRED** for civil engineering contracts throughout the country. Must be prepared to travel. Good salary and prospects for the right men in age group 23-45.—Apply in writing to **MARTIN COWLEY, LTD.**, 112 Jermy Street, S.W.1.

## SENIOR BUILDING AGENTS

Due to continued expansion of their building department, **SIR LINDSAY PARKINSON AND CO., LTD.**, would like to recruit **SENIOR BUILDING AGENTS** having drive and initiative and who can show a sound record in control of large building projects. The positions are progressive and the company operates a superannuation scheme. Applications, in writing, giving details of age, experience, etc., to be addressed to:

Building Director,  
**SIR LINDSAY PARKINSON AND CO., LTD.**,  
6 Lambeth Road, S.E.1.

**ENERGETIC ESTIMATOR/SURVEYOR** **REQUIRED** for progressive business of small engineering works and roads in South-East England (coast).—Write age, qualifications, and salary required, to Box V.3210, "The Contract Journal."

**EXPERIENCED ENGINEER** **REQUIRED** as **AGENT** for large overseas contract. Applicants should be over 40 years of age and should have had considerable experience in running large and complex jobs. Write full details of career to Box V.3176, "The Contract Journal."

**SENIOR QUANTITY SURVEYOR** **REQUIRED** for large civil engineering projects. This position will appeal to Surveyors with experience in negotiating large claims, and who have had wide experience in measuring major civil engineering projects. Write, giving fullest details, to Box V.3207, "The Contract Journal."

**BORED PILING CONTRACT** in Devon **REQUIRES** one **WORKING FOREMAN**. Applicants should have had previous experience in working under marine conditions.—Apply in writing to Box V.3182, "The Contract Journal," quoting Ref. DEF.1.

**SITE AGENT** **REQUIRED** for building contract in the Oxford area. Applications invited from experienced men of proven ability.—Write, giving full details and salary required, to Box 1012, c/o MUIRHEAD AND PHELAN, LTD., Columbia House, Aldwych, W.C.2.

## APPOINTMENTS VACANT

**CASHIER, TIMEKEEPER AND STOREKEEPER** **REQUIRED** for overseas contract. Single quarters only available.—Write full particulars to Box V.3219, "The Contract Journal."

**DRAUGHTSMAN**, with experience of civil engineering plant **REQUIRED** by leading contractors in the Slough area, to assist with design and development work. The appointment is permanent and offers good conditions of employment, together with opportunities for advancement, within an expanding organisation.—Please send full details, in confidence, to Box DW.4383, A.K. Advertising, 212a Shaftesbury Avenue, London, W.C.2.

## CONSULTING CIVIL ENGINEERS

Have vacancies for **ENGINEERING ASSISTANTS** to assist in the design of various public health engineering works. The position offers a wide opportunity of obtaining experience in various aspects of the profession, and after a qualifying period assistants are entitled to join the non-contributory pension scheme operated by the firm.—Applicants should write, giving details of their qualifications and experience, to:

**JOHN TAYLOR AND SONS**,  
Artillery House, Artillery Row, London, S.W.1.

**EXPERIENCED GENERAL FOREMAN** **REQUIRED** for large overseas contract. Applicants must have good all-round experience and should have held previous positions as General Foreman on large jobs. Write full details of experience to Box V.3177, "The Contract Journal."

**YOUNG CIVIL ENGINEERING GRADUATES** **REQUIRED** by well-known North-Western firm of granite specialists. For planning, progressing and supervising current contracts, estimating and costing. Progressive post available for suitable man. Also **JUNIOR ASSISTANTS**, preferably with some site experience.—Full particulars of age, experience, and salary required, to **WHITLEY MORRIS AND CO., LTD.**, 5 Old Hall Street, Liverpool, 3.

**WORKING FOREMAN/SUPERVISOR** **REQUIRED** for building and civil engineering contractors' plant depot in West Middlesex. Knowledge of tower cranes essential.—Apply in writing, stating full particulars of age, experience, and salary required, to Box V.3197, "The Contract Journal."

## SIR LINDSAY PARKINSON AND CO., LTD.

**REQUIRED** the following staff for a major contract in the West of England:

**SUB-AGENTS**. Applicants should preferably be qualified and have had at least 10 years' on site. This should include experience as sub-agent on major projects or as agent on medium-sized contracts. Sound experience of construction in tidal conditions essential.

There are a number of vacancies for senior engineers, including section engineers on construction, a design and planning engineer and a certificate engineer. Applicants should have appropriate qualifications and experience.

**ASSISTANT ENGINEERS**. Required for site duties, setting out, measurements, records, etc. Preference will be given to keen young graduates who wish to make a permanent career with the company.

Applications, in writing, giving details of qualifications and experience, and stating age, present salary and vacancy applied for, should be sent to:

Civil Engineering Director,  
**SIR LINDSAY PARKINSON AND CO., LTD.**,  
6 Lambeth Road, London, S.E.1.

**BUILDING CONTRACTS SUPERVISORS** **REQUIRED** for works in the London area. Applicants should be capable of supervising up to five contracts simultaneously (ranging from £80,000 to £250,000) and be experienced in reinforced concrete, steelwork and sub-contractors. Good pension scheme and car allowance. Salary according to age and experience.—Apply in writing to **McHAULIN AND HARVEY, LTD.**, 24 Highbury Grove, London, N.5.

**NUCLEAR CIVIL CONSTRUCTORS** (Trollope and Colls and Holland & Hannen and Cubitts) have vacancies for **FOREMAN** and **SECTION FOREMAN** (Carpenters) on their nuclear power station contract in North Wales. Please apply to Labour and Personnel Manager, Nuclear Civil Constructors, Trawsfynydd Nuclear Power Station, Trawsfynydd, Merioneth, North Wales.

**SENIOR DESIGN ENGINEER** **REQUIRED** on industrial construction contracts. Applicants should have experience in reinforced concrete, steelwork and building design as applied to industrial construction work. Good prospects and permanent position, with superannuation and bonus schemes in operation. Apply to Personnel Officer, **TARMAC CIVIL ENGINEERING, LTD.**, Ettingshall, Wolverhampton.

## ENGINEERS

Civil engineering contracting, overseas. Applications for site engineering posts on a large overseas contract are invited from **ENGINEERS** having at least five years' site experience. The work is varied and interesting, and the climate is pleasant. Two-year tours. Good prospects for assistant engineers with drive and a sound technical and commercial background.—Write, stating training, experience, age and marital status, to:

**BOX V.3128, "THE CONTRACT JOURNAL."**

**A NUMBER OF ENGINEER/AGENTS** are **REQUIRED** for various civil engineering contracts in the Yorkshire area. Salaries £1,000/£1,300 p.a. plus car, bonus according to experience.—Applications in writing, giving full details, to Box V.3196, "The Contract Journal."

**MAN** **REQUIRED** to take over estimating at progressive precast concrete works in Hounslow/Staines, Middlesex area.—Only those with the necessary qualifications need apply to Box V.3195, "The Contract Journal."

**FULLY** experienced **AGENT** **REQUIRED** for new building contracts in the N.W. Region. Conversant with R.C. frame construction. Pension scheme in operation.—Write with full details, stating salary required, to **LOWTON CIVIL ENGINEERING, LTD.**, Lowton St. Mary's, near Warrington, Lancs.

**JUNIOR ENGINEERS** with contracting experience and **J.V.** willing to accept responsibility **REQUIRED** for civil engineering contracts in the West Midlands. Apply **GEORGE LAW, LTD.**, Kidderminster.

## APPOINTMENTS VACANT

**CIVIL ENGINEERING** contractors would welcome applications from suitably qualified personnel to fill the undermentioned vacancies: **SENIOR ESTIMATING ENGINEER**—preferably with not less than seven years' site experience on land and marine works embracing steel concrete piling and reinforced concrete construction. Salary range £1,250/£1,600 plus provision of a car; **CIVIL ENGINEER**—for temporary works design and layout embracing false work and shuttering. To work in conjunction with Estimating Engineers and works construction. Salary range £1,100/£1,400 plus provision of a car; **SENIOR AND JUNIOR SITE ENGINEERS**—must be fully mobile, with not less than two years' sound site experience, on works of civil engineering construction, salary according to qualifications and experience; **SENIOR GENERAL FOREMAN**—good practical men with extensive experience in all types of land and marine works; possessing drive and the ability to get work done. Salary by arrangement. The above appointments are permanent, and appointees will be eligible, after a probationary period, to enter the company's superannuation scheme.—Apply in writing to the Managing Director, **LOMOUT CONSTRUCTION, LTD.**, 346, ville House, 40 Piccadilly, London, W.1.

**GENERAL ROADWORK, LTD.**—Applications invited for appointment in the plant hire department at our head office at Mitcham Road, Croydon, Surrey. The position offered is one with every opportunity of advancement with our rapidly expanding plant hire company. Preference given to ambitious young men with previous experience in a similar capacity.—All applications should be addressed to the Managing Director, General Roadwork, Ltd., 616 Mitcham Road, Croydon, Surrey.

**SITE SURVEYOR** **REQUIRED** for large building contract in Leicester area. Good prospects for keen worker.—Reply, stating full details of experience and when available, to M.J.G. (CONTRACTORS), LTD., C.E. Dept., Hareton House, London Road, North Charn, Leicestershire.

**COST AND BONUS CLERKS** urgently **REQUIRED** for large civil engineering and building contracts in South-West and Midlands areas.—Reply with full details, to M.J.G. (CONTRACTORS), LTD., C.E. Dept., Hareton House, London Road, North Charn, Surrey.

**YOUNG MAINTENANCE ENGINEER** **REQUIRED** for supervising maintenance and assisting in development on several coated macadam plants and quarry installations. Preferably 25-35 years of age and possessing H.N.C. (Mechanical).—Applications, stating age, experience, and salary required, to **WILLIAM PRITCHARD AND SONS, LTD.**, Dronfield, near Sheffield.

**CONSTRUCTION** and Earthmoving Equipment Distributor **REQUIRES** an experienced **SALESMAN** to develop small products division in London, Home Counties, Surrey, War Office, architects, development corporations, etc., London and Home Counties. Income from salary and commission not likely to be less than £1,200 p.a.—Apply in confidence to R. S. Fenton, Director, **DIAL-MEC, LTD.**, Caxton Hill, Romford.

**FOREMAN MAINTENANCE ENGINEER** **REQUIRED** for heavy engineering works, with experience steelwork erection. Progressive, permanent and pensionable post. House available.—**FRED. WATKINS (ENGINEERING), LTD.**, Coleford, Glos.

For Advertisements received too late for classification see page 1309

## APPOINTMENTS WANTED

**PLANT MANAGER**, 35, with wide experience of C.E. and building plant, transport, etc., **SEEKS SIMILAR POSITION** with progressive company. Costing, spare control, overhead purchases, etc. Hire, site maintenance and bulk earthmoving. Write Box W.3093, "The Contract Journal."

**BUILDERS' REPRESENTATIVE**, with valuable contacts, county councils, local authorities, ministries, Surrey, War Office, architects, development corporations, etc., London and Home Counties. **SEEKS SIMILAR POSITION** immediately. Many years experience liaison work. Write Box W.3179, "The Contract Journal."

**GENERAL FOREMAN**, civil engineering, roads and sewers, deep trunk sewers, bulk excavation, setting out, levelling and measurements. Now free. G.F., 75 Greenways, Buntingford, Herts.

**GENTLEMAN**, wide experience management and negotiation large engineering projects, open for appointment as **LOCAL REPRESENTATIVE**.—Directors please write Box W.3178, "The Contract Journal."

**CIVIL ENGINEER** (28), A.M.I.C.E. **SEEKS** interesting head office based **APPOINTMENT** offering good future prospects. Heavy civil engineering experience with large contractors. Write Box W.3192, "The Contract Journal."

**EXPERIENCED OFFICE MANAGER** **REQUIRES** **CHANGE**, possibly Labour/Personnel Manager or Junior Executive Appointment. £1,500 p.a. min. Bonded. Excellent references. London or South preferred.—Write Box W.3139, "The Contract Journal."

**GENERAL WORKS MANAGER**, 15 years' managerial experience—span pressed and prestressed units (bridge beams, multi-storey structures, etc.) **SEEKS CHANGE** to medium or large precast concrete company.—"The Contract Journal." Write Box W.3214.

## WORK REQUIRED

**SITE CLEARANCE, BULK EXCAVATION, JANES AND CO., LTD.** Trading Estate, Slough. Telephone: Slough 20361—Ext. 4.

**UPROOTING—TREES, STUCCO, HEDGES**, etc. We have the best experience and all modern equipment.—**T. GRAVESON, LTD.**, Warton, Camforth, Lancs. Telephone: Carnforth 381 and 382.

**BULK EARTHMOVING**, direct contract or sub-contract. Also **BULLDOZERS AND SCRAPERS** for HIRE.—**FRANK R. ALFORD, LTD.**, 126 Wigg Road, Leighton Buzzard, Beds. Leighton Buzzard 3151.

**SAM BJOOTH, LTD.**, Perrywood Chambers, Haywards Heath, Sussex. Tel: Haywards Heath 1126 and 1258. **SUB-CONTRACT** or **HIRE**: DPs, bulk Bulldozer and Caterpillar 463 Scrapers.

**BULK EXCAVATION WANTED**.—We have our own staff of qualified civil engineers. We have the following machines ready for work: DPs, DPs, 04s, with Dossers, Scrapers and Rooters. Also 3-ton Excavators with all equipments, and a fleet of new Tipping Lorries. No job is too small for us. **SMITHS PLANT AND CONTRACTORS (CHELTENHAM), LTD.**, Southam Court, 98 Presbury Road, Cheltenham, Glos. Tel. 52021/54419/54473.

## ENGINEERING SURVEYS Ltd.

have staff available for  
**SURVEYS and SETTING-OUT**  
of  
**Civil Engineering & Building**  
work. U.K. or overseas  
**53a HIGH STREET, EWELL, SURREY**  
Phone: Ewell 9341

### WORK REQUIRED

**ALL EXCAVATIONS, CABLE LAYING, SEWERS, DRAINS, OVERSIGHTS, ROADS, etc.** Labour only. Competitive quotations.—**P. COLLINS**, 23 Colingham Park Road, Harrow, Middx. Harrow 1056.

**SPECIALISED EXPLOSIVES SERVICES.** S.U.K. and OVERSEAS MOBILE UNITS cover on-site strong points, sea walls and dangerous structures, etc.—**124 Old Shoreham Road, Southwick, Sussex.** Tel.: Southwick 3751 or Shoreham 4193.

**EXCAVATION SUB-CONTRACTS.** Technical staff available to analyse, programme and price complex projects. Particular attention given to finish and compaction. D9, D3, TD18 and TD14 scrapers, excavators, loading shovels and Lorries available with competent & imaginative supervision for execution of work.—**DICK HAMPTON**, Broadview Farm, Blacknest, Aitch. Hants. Tel.: Bentley 2741.

**BULK EXCAVATIONS**, any quantity quoted to own plant and lorries.  
**COFF AND SON (EXCAVATIONS) LTD.** Buckhurst Hill, Chelmside, Essex. Tel.: 1025/7 P.

**TARMACADAM AND BITUMINOUS MACADAM SURFACING WANTED.** Barber-Greene (new 1960) and roller range to 10 tons. HIRE, CONTRACT or SUB-CONTRACT.—**D. S. O'BRIEN AND CO.** Olive Mount, Birkenhead. Tel.: Birkenhead 6605.

**CONTROLLED EXPLOSIVES, LTD.** specialise in the fragmentation of mass and reinforced concrete inside or outside buildings. Demolition of bridges and chimneys, mass rock, trenching, sewage bed, engine beds, etc., and deep drilling for quarries. Particulars from 11 Church Street, Oldbury, Birmingham. Telephone: BRoadwell 3117.

**IF GRADING, FILLING, TURFING AND PLANTING** form part of your contract, we will be pleased to quote you.—**HOLDROP**, 139 Bella Hill, Barnet. Telephone 9111.

**WANTED, HIRE or CONTRACT WORK** for modern fleet of DW21s, D9s, U8s, 15-ton rear Dump Euclids and 3W8s. For Shovel—Apply: **RODRICK AND RYAN**, Ltd. 421 Nottingham Road, Ilkeston, Derby. Telephone 4381/2.

**DROTT SKID SHOVELS** fitted with Boughton Winch, for hire at keenest rate.—**JAMES COOPER, LTD.** 18 Kensington Church Street, London W.8. Tel.: Waterloo 3412.

**SITE CLEARANCE CO., LTD.** specialists in removal of trees and roots. Expulsion Engineers and Demolition Contractors.—**Delph Dene, Quarry Lane, Appleton, Warrington.** Telephone: Stockton Heath 309.

**BULK EXCAVATIONS and SITE WORKS** undertaken. DIRECT or on SUB-CONTRACT basis. Quotations given for large or small contracts anywhere.—**S. and L. BULL BROS., LTD.** 126A High Street, Winchester. Telephone: Winchester 2264.

**WANTED, EXCAVATION, SITE CLEARANCE and DEMOLITION WORK.**  
**R. BARKER (PECKHAM), LTD.** New Cross 3337.

**EXCAVATION.**—Roads, Sewers, Concreting, Drainage, etc.—**CONTRACTS WANTED.** Qualified Engineer, competent labour force, own equipment, anywhere.—**HARRISON**, Wetherfield Manor, Braintree, Essex. Telephone: Shalford Green 464.

**DISMANTLING and/or RE-ERECTION.**—Stripping and Re-setting, T2, B1 Hangars, any type of Steelwork, and Plant, etc. Sheet piling, stripped and removed. Distance no object.—**BEDS. DISMANTLING AND DEMOLITION CO.** 3 Lurke Street, Bedford. Telephone: Bedford 66033.

**EARTHMOVING, LEVELLING, LAND DRAINAGE.** RECLAMATION, etc. Consult the Surface Specialists.—**SURFACE MAINTENANCE SERVICES, LTD.** 124 Old Christchurch Road, Bournemouth. Tel.: 24673. Branches throughout the country.

**SITE CLEARANCE, EXCAVATION, MOBILE HAULAGE, LTD.** 230 Tottenham Court Rd. London W.1. Tel.: 7833-5.

**BULK EARTHMOVING, OVERBURDEN, STRIPPING, EXCAVATION** for roads, airfields, etc., with Euclid T524 Motorised Scrapers and Caterpillar D8 Tractors and Scrapers able to undertake work anywhere in the country. **CONTRACTORS PLANT HIRING CO., LTD.** Barkby Road, Leicester. Telephone: Leicester 66631—4 lines. Northern Representative: 91 Shaw Road, Shaw Heath, Stockport. Telephone: Stockport 3082.

### INVENTIONS

**INDUSTRIAL ENGINEERS OF REPUTE** invite in strict confidence, DETAILS of INVENTIONS, with object of manufacturing and world distribution. Write Box K.L.517, "The Contract Journal."

### DIVING

**DIVERS and FROGMEN** at immediate notice. Night—**FARMINGHAM, LTD.** Dartford 24139. Night—**FARMINGHAM 2452.**

**REED AND MALLIK, LTD.** Civil Engineering Contractors (Diving Division), Milford Manor, Salisbury, Wiltshire. Telephone 5141.

**DIVERS IMMEDIATELY AVAILABLE.** Welding, cutting, construction, etc. Any part of world. UNDER WATER WELDERS and REPAIRERS. Cardiff. Tel. 29631. (After hours: Penarth 58131.)

### ACCOMMODATION

**ACCOMMODATE YOUR EMPLOYEES** in a 4-bed CARAVAN, fully equipped with heating, lighting, cooking and washing facilities. Hire rates from 50/- per week for four persons. Also MOBILE OFFICES. Delivered anywhere.—**NORTHERN CARAVAN DISTRIBUTORS**, Handforth, Ches. Tel.: Mercurv 4255/6.

**FOR HIRE**, all types of CARAVANS available. Usual amenities. From 40/- per week. Delivered anywhere.—**CATERHAM CARAVAN CENTRE, LTD.**, The A.22 Roundabout, Godstone Road, Whyteleafe, Surrey. Telephone: Upper Warringham 3590/3807.

### AGENCIES

**PLANT HIRE FIRM**, well established in Birmingham area. SEEKS AGENCIES.—Write Box G.G.514, "The Contract Journal."

### BUSINESSES—SALE OR WANTED

**PLANT HIRE AND CONTRACT BUSINESS**, operating within 30 miles Peterborough for SALES, T/O £12,000. Good living accommodation and garage. £11,000, including all plant, etc. Write Box X.3097, "The Contract Journal."

**PROSPEROUS BUILDERS' MERCHANTS' BUSINESS** situated in West Midlands. Turnover in excess of £80,000 per annum. Capital required for complete takeover, including freeholds, £65,000. Write Box X.3119, "The Contract Journal."

**BUILDERS AND CONTRACTORS**, old-established in North Surrey town, for DISPOSAL due to retirement of senior director. Turnover averaging £140,000 over last five years. Price in excess of £25,000. For details, apply: **RICHARD MORDANT AND CO.**, Chartered Accountants, 13/14 Great St. Thomas Apostle, London, E.C.4.

**KENT—BUILDERS' BUSINESS** for SALE, owners retiring. Very old-established and showing high returns. Freehold yard and joinery works, stock and plant and exc. goodwill, all at £9,800. Purchaser can take options on some 28 fine building plots, mostly with roads and sewers laid. Living accommodation can be arranged.—**VERYARD AND YATES**, 2 High Street, Bromley, Kent. Tel.: RAV. 8731.

### FINANCE

**HIRE PURCHASE FINANCE** available for all types of MACHINERY, etc.—Apply: **D. EVERARD, LTD.** 62 Oxford Street, London, W.1. MUSEUM 0811.

### HORTICULTURAL

**TURVES**—Machine-cut, 3ft. x 1ft., close mown, weed-treated, 60/- per 100. Kain trade rates. We would be pleased to quote for your levelling and laying.—**E. R. RANCE, LTD.** 24 Sheepcot Lane, Watford. Telephone: Garston 2725.

**ROTARY CULTIVATORS** available for HIRE or CONTRACT WORK. Grading, Levelling, Earthmoving undertaken.—**JAMES COOPER, LTD.** 28 Kensington Church Street, London, W.8. Western 3412.

**QUICKTHORN HEDGING PLANTS**—Strong, transplanted, fibrous rooted, 1 1/2/2ft. high; two/three-year old; 250/- per 1,000 carriage paid for c.w.o. **BLACKDOWN NURSERIES, LTD.** Blackdown, Kidderminster, Worcs. Phone: Blackdown 410 and 468.

**BEST QUALITY TURF**, machine cut, 3ft. x 1ft., weed-treated, 60/- per 100 delivered. Distance no object. Keen TURF CO., Orchard Dene Nursery, Hadlow, Tonbridge, Kent. Telephone: Hadlow 416.

**BULK TURF and TOP-Soil DELIVERIES**, 24-hour quotations given for London and Home Counties. **J. P. TOMLINSON**, Longlands Nursery, Blackness Lane, Keston, Kent. Telephone: Farnborough (Kent) 51000.

**TURVES**, excellent quality 3ft. x 1ft. machine-cut, 60/- per 100 delivered 40 miles radius of London. Trade rates. Councils supplied. Quotations for road verges, flats and other tarring areas. **J. MONK**, 45 Kings Road, South Harrow, Middlesex. Telephone: Byron 9872.

**FOR SALE**, 1,000,000 finest quality Kent Marsh TURVES, £25 per 1,000 delivered, 3ft. x 1ft. Distance no object. Satisfaction guaranteed. **FAIRVIEW NURSERIES (GILLINGHAM), LTD.** Tel.: Rainham 81264.

**TURF LAYING, SEEDING, TREE and HEDGE PLANTING, CONTRACT MOWING.**—For keenest quotes, consult: **FAIRVIEW NURSERIES (GILLINGHAM), LTD.** Tel.: Rainham 81244.

**TURFING — SEEDING — HEDGING.** Quotations for all branches of landscape work, anywhere in the U.K. for contracts & special rates. **WEBSTER BROS.** Horstorth, Leeds. Horstorth 2364.

**TOP SOIL**—200,000 cubic yards available. Delivered in large and small quantities. Soil supplied ex site in approved cases.—**LATHAM AND CO. (CONTRACTORS), LTD.** Westward House, Guildford Rd., Lightwater, Surrey. Bagshot 2037 and 2400.

**A KEEN QUOTATION** for your TURFING, SEEDING and HEDGING CONTRACTS: London and Home Counties.—**R. J. ENSTONE & SON, LTD.** Head Office: 34 Alma Road, St. Albans. Tel. 55528.

**QUICKS**, extra quality fibrous rooted: 12-18in., 18/-; 145/- 18-24in., 24/-; 200/- 24-30in., 28/-; 270/- extra heavy: 30-40in., 35/-; 330/- special transplanted and cut back: 18-24in., 35/-; 24-36in., 40/-; 380/- Oval Leaf Privet: 12-18in., 22/-; 215/- 18-24in., 28/-; 275/- special transplanted bushy: 18-24in., 35/-; 340/- 24-30in., 50/-; 470/- 30-36in., 70/-; 670/- Beech: 10-16in., 20/- per 100; transplanted 3-year: 18-24in., 50/-; 480/- 30-36in., 75/-; 700/- 18-24in., 24/- per doz. All carriage paid for C.W.O. over £1; under 2/-.—**GARDEN BEAUTY PRODUCTS**, Wickford, Essex. Telephone 2152.

**THORN QUICKS.** We are supplying contractors with all types of thorn and John's Groats at the keenest prices in the land.—**ALFRED J. COX (GARDENS), LTD.** Stoke Poges, Bucks. Farnham Common 881.

**SOILING, SEEDING and TURFING.** Site Clearance, Excavation and Levelling Work undertaken in any part of the U.K. at competitive prices.—**GILLIAM, Purley, Surrey.** UPLAND 9223/6.

**JOHN DEERE 1 cu. yd. CRAWLER LOADERS** available, LONG or SHORT HIRE. Keen rates. **RINGWATER CONTRACTORS, LTD.** Horstorth 4805.

## FULLER HORSEY

SONS & CASSELL

**AUCTIONEERS AND VALUERS**  
OF  
**PLANT, MACHINERY AND**  
**FACTORIES**

Since 1807

**10 LLOYDS AVENUE**

**LONDON E.C.8**

**TELEPHONE: ROYAL 4861**

Southwark

### SALES BY TENDER

**COUNTY BOROUGH OF BOOTLE.**  
**BOROUGH SURVEYOR'S DEPARTMENT.**

The CORPORATION have the FOLLOWING BRONZE BELLS from the Town Hall Tower Clock Chime for DISPOSAL as a complete peel or for scrap:—  
One Bell 10cwt. 102lb.  
One Bell 7cwt. 105lb.  
One Bell 6cwt.  
One Bell 4cwt. 49lb.  
Bells may be inspected and Form of Tender obtained from Borough Surveyor's Office, Town Hall, Bootle, 20, Lancs.  
**HAROLD PARTINGTON.** Town Clerk.

**STEPNEY METROPOLITAN BOROUGH COUNCIL.**

TENDERS are invited for the PURCHASE of the UNDERMENTIONED SECOND-HAND PLANT:—  
One Horizontal Elliptical Disinfecter.  
One Vertical Cross Tube Boiler.  
Forms of Tender, with Conditions, obtainable from the Borough Engineer and Surveyor, Municipal Offices, 227/233 Commercial Road, E.1.  
Closing date for Tenders, 2nd JANUARY, 1961.  
**WILFRED REEVE.** Town Clerk.

Municipal Offices,  
227/233 Commercial Road, E.1.  
**HAYES AND HARLINGTON URBAN DISTRICT COUNCIL.**

**DISPOSAL OF REDUNDANT VEHICLES AND PLANT.**

TENDERS are invited for the PURCHASE of the FOLLOWING (separate lots):—  
One 1953 Morris Commercial 10cwt. Van.  
One 1953 Yorkshire Karrier Street Sweeper Collector.  
One 1956 Bristol 25 Angledozer.  
One 1952 Morris 5cwt. Van.  
One 1949 Wallis and Stevens 2 1/2-ton Roller.  
One Weaver High Pressure Steam Cleaner.  
One Johnson 4in. Clear Water Pump, fitted with Ford Engine.  
One 1951 Brush Pony Electric Truck, complete with Battery Charge.  
Forms of Tender and Conditions of Sale obtainable from Engineer and Surveyor, Town Hall, Hayes, Middlesex, on receipt of request stating for which items forms are required.  
Tenders, in sealed envelopes, endorsed "Tenders" for Redundant Vehicles and Plant, but not indicating the sender, to be received by CLERK AND SOLICITOR OF THE COUNCIL at the above address by Noon on 31st DECEMBER, 1960. The Council does not bind itself to accept the highest or any Tender.

**MAIDSTONE CORPORATION TRANSPORT.**

**VEHICLES FOR DISPOSAL.**

TENDERS are invited for the DISPOSAL of Two Karrier Double-deck TROLLEY BUSES, first registered in 1945.  
Full particulars and Form of Tender may be obtained on application to the General Manager and Engineer, Corporation Transport Department, 372 Tonbridge Road, Maidstone.  
Tenders to be forwarded to the TOWN CLERK, 13 Tonbridge Road, Maidstone, before 21st JANUARY, 1961.

### SALE BY AUCTION

**HETHEL AIRFIELD, NORFOLK.**  
SALE BY AUCTION of all types of CONTRACTORS' PLANT, VEHICLES, TRAILERS, AGRICULTURAL MACHINERY, BUILDING MATERIALS and GENERAL EQUIPMENT (2,300 Lots)

As previously advertised in issues of November 3rd and 10th, will now take place on MONDAY and TUESDAY, DECEMBER 12th and 13th, 1960.

Catalogues from the Auctioneers:  
**W. S. HALL AND PALMER,** Wymondham (Tel. 3031/2), Norfolk.

### PROFESSIONAL SERVICES

**CIVIL ENGINEERING CLAIMS.**—Director/Consultant Engineer, with long and varied experience in high-level negotiation of contractors' claims, OFFERS SERVICES on a fee/commission basis.  
Write Box P.P.392, "The Contract Journal."

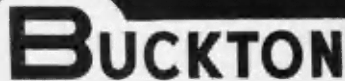
### LAND AND PROPERTY

**GRAVEL-BEARING LAND REQUIRED**, minimum 30 acres, suitable for use as quarry. Write Box X.3212, "The Contract Journal."

**GRAVEL-BEARING LAND REQUIRED**, minimum 30 acres, within 20 miles radius of Birmingham, suitable for use as quarry. Write Box X.3213, "The Contract Journal."

**INDUSTRIAL PROPERTY**, 10 acres, 15,000ft. covered, main road, water and electricity, west side of London, to be SOLD, suit large and expanding plant operator. Write Box X.3220, "The Contract Journal."





# TRAXCAVATORS FOR HIRE

Caterpillar Traxcavators, D4, D7, D8  
Caterpillar Tractor Dozer/Scrapers, D8  
Caterpillar Tractors with Type 80  
Birtley 14/18 cu. yd. Scraper, 10 RB 19 RB  
and 22 RB Excavators.



THE BEST ON EARTH-

BUCKTON OF ASHTON

BUCKTON LIMITED 63 Stockport Road, Ashton-under-Lyne. Tel: Ashton-under-Lyne 1848 (3 lines)

## INDEX TO ADVERTISERS

A	Page	E	Page	P	Page
A. & G. Designs (Romford), Ltd. ....	1262	Eagre Construction Co., Ltd. ....	1266	Plant Engineers, Ltd. ....	xx
A.C.E. Machinery, Ltd. ....	xvi	Eastwoods Sales, Ltd. ....	1294	Plywood Manufacturers Association of British Columbia ....	1366
Airviews, Ltd. ....	1278	F		Priest, B., & Sons, Ltd. ....	1250
Allam, E. P., & Co., Ltd. ....	1254, 1260	Firestone Tyre and Rubber Co., Ltd. ....	xiv	Prowing Plant Hire, Ltd. ....	1374
Allam Machinery Hire, Ltd. ....	1250	Flexitol Engineering Co., Ltd. ....	1254	R	
Allen, John, & Ford (Oxford), Ltd. ....	1252	Ford Motor Co., Ltd. ....	1267	Rainbow Industries, Ltd. ....	1256
Allen, John, & Sons (Oxford), Ltd. ....	134*	Foster, Arthur, (Construction Engineers), Ltd. ....	1284	Rawlplug Co., Ltd. ....	ib
Allied Brick and Tile Works, Ltd. ....	1250	G		Record Tower Cranes ....	1252
Amalgamated Limestone Co., Ltd. ....	1287	Gaylord, Edwards & Co., Ltd. ....	1252	Richards, H., & Co., Ltd. ....	xia
Anderson-Grice Co., Ltd. ....	1369	Gibson, F., & Co. (Newcastle), Ltd. ....	xila	Road Machines (Drayton), Ltd. ....	Cover viii, vii, vii
Armstrong-Cork Co., Ltd. ....	1373	G.K.N. Reinforcements, Ltd. ....	1288	S	
Armstrong-Whitworth (Metal Industries), Ltd. ....	ic, 1290	Gliksten, J., & Sons (Doors), Ltd. ....	1378	Sanders & Forster, Ltd. ....	xiva, xiv
Arup & Arup, Ltd. ....	xvii	Godenough Pumps, Ltd. ....	ib	Sanplant (Derby), Ltd. ....	1367
Atlas Copco (Great Britain), Ltd. ....	xxiv	Goodyear Tyre and Rubber Co., Ltd. ....	1375	Saunders, A. J., (Tractors), Ltd. ....	1282
Audax ....	1284	Government of Canada ....	1261	Saunders, H. A., Ltd. ....	ib, iia
Austin Motor Co., Ltd. ....	1285	Green, Thos., & Sons, Ltd. ....	1371	Saville (Tractors), Ltd. ....	v
Aveling-Barford, Ltd. ....	xxi	Greenham Equipments, Ltd. ....	Cover v, 1286	Seal-less Strapping, Ltd. ....	1356
B		H		Sellers, H., (Leeds), Ltd. ....	1282
Bamford, J. C., (Excavators), Ltd. ....	i, iii, iii, iv	Holland & Hannen and Cubitts, Ltd. ....	1230, 1281	Sharp Jones & Co., Ltd. ....	1342
Barfords of Belton, Ltd. ....	Cover iv	Holman Bros., Ltd. ....	ivb	Shawnee-Poole, Ltd. ....	via, vlla, 1268
Blaw Knox, Ltd. ....	viilc	J		Siebert, James, Equipment Co., Ltd. ....	1278
Bowmaker Group ....	1277	Johnson, C. H., (Machinery), Ltd. ....	1257	Smith, Thos., & Sons (Rodley), Ltd. ....	1289
Bradley Nash Tyzack, Ltd. ....	1258	K		Sommerfelds, Ltd. ....	1256
Braham, Patterson & Benham, Ltd. ....	1268	Key Engineering Co., Ltd. ....	x, xi	Soarrow, G. W., & Sons, Ltd. ....	1284
Branch, Jack, (London) ....	1282	L		Soemmer Wire Co., Ltd. ....	1256
Bristol Plant Hire, Ltd. ....	1259	Leverton, H., & Co., Ltd. ....	ivc, vc	Stanley, W. F., & Co., Ltd. ....	Cover ii
British General Insurance Co., Ltd. ....	1380	Lewis & Lewis, Ltd. ....	1380	Stanton Ironworks Co., Ltd. ....	1256
British Steel Piling Co., Ltd. ....	1278	Liner Concrete Machinery Co., Ltd. ....	1366	Staveley Iron and Chemical Co., Ltd. ....	1372
Broom & Wade, Ltd. ....	1249	Low, James F., & Co., Ltd. ....	viii	Sumo Pumps, Ltd. ....	1262
B.T.R. Industries, Ltd. ....	1370	M		Survey and General Instrument Co., Ltd. ....	1360
Buckton, Ltd. ....	1305	Machinery (Continental), Ltd. ....	1230	Sykes, Henry, Ltd. ....	1360
C		Marshall, Sons & Co., Ltd. ....	1295	Symes (Plant Sales), Ltd. ....	1360
C. & R. Constructions, Ltd. ....	1260	Maxim Conveyors (England), Ltd. ....	1295	T	
Cartruk, Ltd. ....	1282	M.E. Engineering, Ltd. ....	1284	Thompson, W. L., Ltd. ....	1295
Caterpillar Tractor Co., Ltd. ....	ilic, iilc	Moore's Plant, Ltd. ....	1279	Thwaites Engineering Co., Ltd. ....	vi, vii, xviii, xix
C.E.T. (Plant), Ltd. ....	1286	Myers, Fred., Ltd. ....	xila	Times, Ltd. ....	1266
Chain Link Fencing, Ltd. ....	1260	N		Tower Cranes, Ltd. ....	xix, xia
Chamberlain Plant, Ltd. ....	1263	National Coal Board ....	1378	Tunny Cranes, Ltd. ....	1379
Cheshire Engineering Co., Ltd. ....	villa	National Federation of Demolition Contractors ....	1264, 1265	Twentieth Century Equipment Co., Ltd. ....	1281
Clifton, I., & Sons, Ltd. ....	Cover ii	Neal, R. H., & Co., Ltd. ....	vic, viic	U	
Cohen, George, Sons & Co., Ltd. ....	1255	O		Under Water Welders and Repairers, Ltd. ....	1370
Compactors Engineering, Ltd. ....	1253	Olding, Jack, & Co., Ltd. ....	Cover vii	Universal Divers, Ltd. ....	1266
Conlin, B. E. ....	1374	P		V	
Contractors Services, Ltd. ....	1283	Parker Timber Co., Ltd. ....	1366	Val de Travers Asphalt Paving Co., Ltd. ....	1345
Costain, Richard, Ltd. ....	1310	Peel, H., Ltd. ....	1368	Vickers-Armstrongs (Tractors), Ltd. ....	Cover iii
County Commercial Cars (Sales), Ltd. ....	1335	Pegson, Ltd. ....	1293	W	
Cox & Danks, Ltd. ....	1372	Penhill Supplies, Ltd. ....	1284	Waite, A. & R., Bros. ....	1282
Cox, H., & Sons (Plant Hire), Ltd. ....	1370	Philips Electrical, Ltd. ....	1377	Walpamur Co., Ltd. ....	xiii
Cripps, R., & Co., Ltd. ....	iva	Phoenix Engineering Co., Ltd. ....	1258	Ward, Thos. W., Ltd. ....	ib, iib, iib
Crockatt, W., & Sons, Ltd. ....	1368	Pike, George, Ltd. ....	1345	Warsop Power Tools, Ltd. ....	1365
Croogon & Co., Ltd. ....	1343	Planet Plant Hire ....	1376	Wenick & Sons, Ltd. ....	1344
D				Whitlock Bros., Ltd. ....	xxii, xxiii, vi
Dandridge, Arthur F., Ltd. ....	1292			Winget, Ltd. ....	Cover i
Davidsons Paper Sales, Ltd. ....	ix			Y	
Dawson, W. A., Ltd. ....	1368			Youngman, W. C., Ltd. ....	viii
Diving Specialists, Ltd. ....	1282				
Doe, Ernest, & Sons, Ltd. ....	ib, 1251				
Dorman Long & Co., Ltd. ....	1262				

# Advertisements received too late for Classification

## BOROUGH OF BASINGSTOKE.

### PRIVATE STREET WORKS—DARLINGTON ROAD.

TENDERS are invited for the CONSTRUCTION of APPROX. 650 lin. yd. of KERBING, 2,122 sq. yd. of CARRIAGEWAY CONSTRUCTION (Hardcore/Macadam), 1,477 sq. yd. of FOOTPATH CONSTRUCTION, Gullies, Sinks and other ancillary works. Bill of Quantities, Specification and Form of Tender may be obtained from the Borough Surveyor, Municipal Buildings, Basingstoke, on payment of a deposit of Two Guineas, which will be refunded upon receipt of a bona-fide Tender not subsequently withdrawn, and the return of the Specification. Drawings and General Conditions of Contract may be inspected at the Office of the Borough Surveyor during normal office hours.

Tenders, in plain sealed envelopes endorsed "Tender—Darlington Road," must be delivered to the undersigned not later than 12 Noon on 5th JANUARY, 1961.

The Council does not bind itself to accept the lowest or any Tender.

L. WOMERSLEY,  
Town Clerk.

Municipal Buildings,  
Basingstoke,  
Hants.

## BOROUGH OF BRIDGWATER.

THE CORPORATION invites TENDERS for the SUPPLY of the FOLLOWING GOODS and MATERIALS from 1st April, 1961, to 31st March, 1962:—

- (1) General Stores.
- (2) Cast-Iron Goods.
- (3) Cement and Precast Kerb and Paving.
- (4) Lead Pipe, Water Fittings, etc.
- (5) Tarmacadam, Cold Asphalt, Emulsion and Grit.
- (6) Motor Tyres and Tubes.
- (7) Bricks, Bricklayers' Materials and Sanitary Fittings.
- (8) Ironmongery.

Further particulars and Forms of Tender may be obtained from the Borough Treasurer, Town Hall, Bridgwater.

Tenders must be submitted in plain sealed envelopes, marked "Tender for Stores," but which must not bear any name or mark indicating the sender, and must be delivered to the undersigned not later than MONDAY, 23rd January, 1961.

The Corporation does not bind itself to accept the lowest or any Tender.

H. A. CLIDERO,  
Town Clerk.

Town Hall,  
Bridgwater.

## BOROUGH OF WESTON-SUPER-MARE.

TENDERS will shortly be invited on a selective basis for the ERECTION in a new development area of a FACTORY of approx. 26,000 sq. ft. The factory will include a single-storey steel-framed production area with two-storey office building on the front. Roads and services are available.

Tenders will be required by 2nd JANUARY, 1961. Part occupation of the building is required by July next, and full occupation in September. Contractors desirous of tendering should submit their names to the undersigned immediately.

R. G. LICKFOLD,  
Town Clerk.

Town Hall,  
Weston-super-Mare,  
2nd December, 1960.

## URBAN DISTRICT COUNCIL OF BRAINTREE AND BOCKING.

### RESURFACING OF COUNTY AND DISTRICT ROADS.

TENDERS are invited, on a Fixed-price Basis, for the RESURFACING of approx. 15,000 super. yd. of COUNTY and DISTRICT ROADS with DENSE BITUMINOUS SLAG MACADAM and BITUMEN GRAVEL MACADAM.

Forms of Tender, Conditions of Contract and Bills of Quantities may be obtained from the Engineer and Surveyor upon payment of a deposit of £2 2s., which will be refunded upon receipt of a bona-fide Tender and all documents.

Tenders are to be returned in a plain sealed envelope endorsed "Tenders—Resurfacing," and must be delivered to the undersigned at the Town Hall, Braintree, not later than Noon on FRIDAY, 30th December, 1960.

The Council does not bind itself to accept the lowest or any Tender.

W. BALSON,  
Clerk of the Council.

## BROMLEY COMMITTEE FOR EDUCATION.

### BROMLEY COUNTY GRAMMAR SCHOOL FOR BOYS.

#### TWO NEW LABORATORIES AND CANTEN EXTENSIONS.

Contractors having suitable experience of school contracts, details of which are to be submitted, are invited to apply by MONDAY, 19th December, 1960, for consideration to TENDER for the ABOVE WORKS. Drawings and Conditions of Contract may be inspected at the Office of the Borough Engineer, to whom applications to tender should be sent.

H. T. SMITH,  
Borough Education Officer.

Municipal Buildings,  
Bromley,  
Kent,  
9th December, 1960.

**EXPERIENCED SALES REPRESENTATIVES**, with technical knowledge of asphalt felt roofing REQUIRED to call on architects and builders, etc., in the Northern Home Counties and London. Preference will be given to man with existing connections. Guaranteed minimum salary and commission £900 p.a., which can be exceeded by conscientious person. Writing, giving full details of capabilities, age, etc., to CAMBRIDGE ASPHALTE CO., LTD., Swann Road, Cambridge.

**AGENTS and REPRESENTATIVES REQUIRED**, with good connections. — Write STEEL WOOL FACTORY (LONDON), LTD., Silverdale Road, Hayes, Middlesex.

**ASSISTANT CIVIL ENGINEERS**. RICHARD COSTAIN, LTD., have vacancies for young civil engineers who wish to gain experience on motorway, airfield and at least three years' previous site experience. These are progressive positions, offering varied experience, leading to more senior appointments. Good starting salaries, with merit bonus payments, and subsistence when living away from home. — Please write to PERSONNEL MANAGER (2/C), 111 Westminster Bridge Road, London, S.E.1.

## DEPTFORD BOROUGH COUNCIL.

TENDERS are invited for the FOLLOWING for the 12 months commencing 1st April, 1961:—

- (a) Uniform and Protective Clothing and Footwear.
  - (b) Paving Materials (including Tarmacadam, Bituminous Macadam, Cold Asphalt, Sand, Ballast, etc.).
  - (c) Stoneware Drainpipes, Gullies, etc.
- Forms of Tender from the Borough Engineer, Deptford Town Hall, S.E.14.
- Tenders, enclosed in a plain sealed envelope, and endorsed "Tender for —," to be received by the TOWN CLERK not later than 4 p.m. on MONDAY, 9th January, 1961.
- The Council does not bind itself to accept the lowest or any Tender.

## WEST MERSEA URBAN DISTRICT COUNCIL.

HIGHWAYS ACT, 1959  
(PRIVATE STREET WORKS CODE).

### CAPTAINS ROAD, CHURCHFIELDS, AND NEW CAPTAINS ROAD.

TENDERS are invited on a fixed-price basis from experienced contractors for the MAKING-UP of the ABOVE-MENTIONED STREETS. The work comprises the Construction of approx. 3,500 sq. yd. Tarmacadam Carriageways and Hardcore Foundations, 1,120 sq. yd. Tarmacadam Footways, 1,271 lin. yd. Precast Concrete Kerb, Surface Water Drainage and incidental works.

Specification, Bill of Quantities and Form of Tender may be obtained from and Drawings inspected at the Office of E. J. BANNER, M.Inst.M.E., Engineer and Surveyor, at the address below during normal office hours, on payment of a deposit of Two Guineas, which will be refunded on receipt of a bona-fide or all tender documents.

Tenders, in plain sealed envelopes, endorsed "Private Street Works," must be returned to the Office of the undersigned not later than the 2nd JANUARY, 1961.

The Council does not bind themselves to accept the lowest or any Tender.

W. H. CARRINGTON,  
Clerk of the Council.

Council Offices,  
West Mersea, Essex,  
8th December, 1960.

## HAVERFORDWEST RURAL DISTRICT COUNCIL.

### TALBENNY-LITTLE HAVEN WATER EXTENSION.

TENDERS are invited from competent civil engineering contractors for the PROVISION and LAYING of approx. 1,850 yd. of 3in. WATER MAIN with Valves, Fittings, and ancillary works.

The site is approx. seven miles south-west of Haverfordwest.

Documents obtainable from Council's Surveyor and Water Engineer, 8-10 Picton Place, Haverfordwest. No deposit required, but Council reserves the right to charge for documents not returned.

Tenders to be received by me not later than 14th JANUARY, 1961.

The Council does not undertake to accept the lowest or any Tender, and acceptance is subject to the approval of Welsh Office, Ministry of Housing and Local Government.

(Signed) HENRY J. DICKMAN,  
Clerk of the Council.

8-10 Picton Place,  
Haverfordwest,  
8th December, 1960.

## CLAREMONT CONVALESCENT HOME, SOUTHPORT.

### TO BUILDING CONTRACTORS.

**FIXED-PRICE TENDERS** are invited, on behalf of the Royal Antislavery and Abolition Society, for ALTERATIONS and ADDITIONS to the ABOVE, to a total estimated cost of £22,000, of which £13,000 value is in Engineering Work by nominated sub-contractors.

Applications for Bills of Quantities, Drawings and Form of Tender, accompanied by a deposit of £2 2s. (which will be refunded on receipt of a bona-fide Tender), must be made to the Architects, KITSON, PARISH, LEDGAR and PYMAN, Chartered Architects, Lloyds Bank Chambers, Vicar Lane, Leeds, 1.

Tenders must be delivered to the ARCHITECTS not later than 12 Noon on MONDAY, 16th January, 1961.

**REQUIRED** by major civil engineering contractors, BORED PILING WORK on direct or sub-contract basis. Specialist labour and full equipment available for immediate work. — MESSRS. J. MURPHY AND SONS, LTD., 43 Charteris Road, Finsbury Park, N.4. (Archway 7881.)

### ORGANISATION AND METHODS.

Prominent firm of building and civil engineering contractors has vacancies for first-class O. and M. men with experience of building and civil engineering. — Write, giving details of age, education and experience, to Box V.3218, "The Contract Journal."

### EXPERIENCED CHECKERS and STOREKEEPERS

REQUIRED for civil engineering contracts in North-West. Good prospects for first-class men. Write full details of experience, age, and salary required, to Box V.3215, "The Contract Journal."

There is no better medium than

## THE CONTRACT JOURNAL

for small classified  
advertisements

Telephone for

LINEAGE RATES to

WATERLOO 3411

## GLAMORGAN COUNTY COUNCIL.

### TO PUBLIC WORKS CONTRACTORS.

The Glamorgan County Council invite TENDERS for the FOLLOWING IMPROVEMENT WORKS:—

- (i) The Widening of the Bridgend-Treforest Road, Route A.473, between Barry Railway Bridge and Waterton Cross. The work comprises the Widening of a length of approx. 300 yd. of Carriageway, together with all necessary ancillary works.
- (ii) The Improvement of part of Tailiwyd Road, Neath Abbey. The work comprises the Realignment and Widening to 20ft. of approx. 250 yd. of Carriageway, together with all necessary ancillary works.
- (iii) The Improvement of the Unclassified Road from Llanharry Station to Lanely Junction. The work comprises the Realignment and Widening to 24ft. of approx. 550 yd. of Carriageway, together with all necessary ancillary works.

Drawings, Specification, Conditions of Contract, Bill of Quantities and Forms of Tender may be obtained from the County Surveyor, County Hall, Cardiff, on payment of a deposit of Two Guineas for each scheme, which will be returned (subject to the Condition of Tender) on receipt of a bona-fide Tender and the return of the documents supplied.

Sealed tenders, made out on the prescribed forms, are to be delivered at the County Hall, Cardiff, by First Post on FRIDAY, the 30th December, 1960, addressed to the Clerk of the County Council, and marked on the outside "Tender for Improvements at Waterton, Neath Abbey and Llanharry," as appropriate.

The Council will not necessarily accept the lowest or any Tender.

RICHARD JOHN,  
Clerk of the County Council.

2nd December, 1960.

## LONDON COUNTY COUNCIL.

### HOUSING DEPARTMENT—WORKS DIVISION.

**BONUS SURVEYORS REQUIRED** for operation of incentive schemes for all trades on work of new construction, and modernisation and conversion schemes. Up to £950, according to experience and qualifications. Write not later than 20th DECEMBER, stating age, qualifications and experience, to DIRECTOR OF HOUSING (G1/C/3120/12), County Hall, S.E.1.

## BOROUGH OF KIDDERMINSTER.

### APPOINTMENT OF TWO ENGINEERING ASSISTANTS.

APPLICATIONS are invited for the UNDER-MENTIONED APPOINTMENTS:—

- (a) Engineering Assistant, A.P.T. II (£515-£960).
- (b) Junior Engineering Assistant, A.P.T. I (£645-£815).

Applicants should have had previous experience in a municipal engineer's office.

The appointments are superannuable and subject to the National Scheme of Conditions of Service, and the successful candidates will be required to pass a medical examination.

Applicants, giving particulars of age, qualifications and experience, together with the names of two referees, must be delivered to G. STEWART, ESQ., Borough Engineer and Surveyor, 110 Mill Street, Kidderminster, to arrive not later than TUESDAY, 20th December, 1960.

J. L. EVANS,  
Town Clerk.

Town Hall,  
Kidderminster,  
3rd December, 1960.

## BULLINGDON RURAL DISTRICT COUNCIL.

### ERECTION OF WATER TREATMENT PLANT AT CULHAM.

The Council are about to invite TENDERS for the CONSTRUCTION of a RAW WATER INTAKE WORKS and a WATER TREATMENT PLANT at Culham. The Treatment Works, which is designed to treat 500,000 gallons of water per day, will include a large amount of reinforced concrete work and buildings of traditional construction.

Contractors wishing to tender should send their names to the Council's Engineer and Surveyor, MR. J. E. BUSFIELD, M.I.Mun.E., at the under-mentioned address, by not later than the 29th DECEMBER, 1960.

L. C. WORT,  
Clerk of the Council.

Council Offices,  
76 Banbury Road,  
Oxford.

**EXPERIENCED and TRAINEE OFFICE MANAGERS** REQUIRED for building and civil engineering contracts. Must be willing to travel. Excellent prospects for men with initiative and drive. Pension scheme. — Write full details of experience, age, and salary required, to Box V.3217, "The Contract Journal."

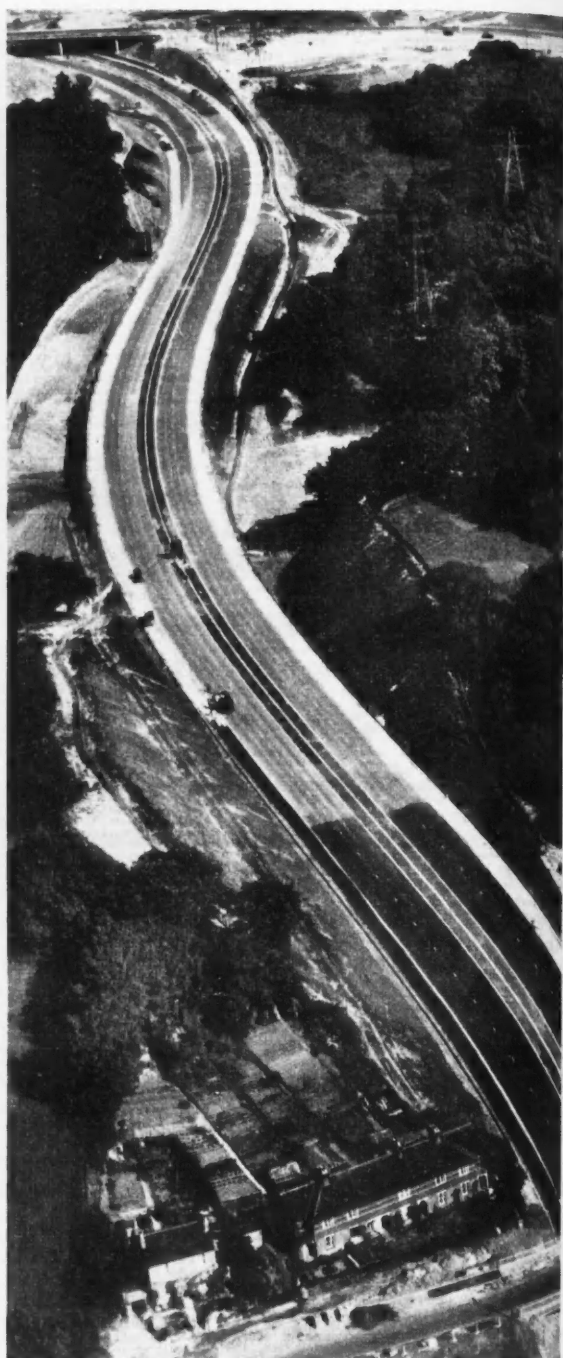
**EXPERIENCED SITE ENGINEER REQUIRED** by civil engineering contractors for roadworks, drainage and sewage disposal contracts in East Suffolk. The position is permanent, with pension scheme, offering a substantial salary, and offers exceptional prospects of advancement to higher grades in an expanding organisation. — Write in confidence, stating age, full details of experience and past employers, to Box V.3222, "The Contract Journal."

**CIVIL ENGINEERING DRAUGHTSMAN REQUIRED** for the London office of an engineering company, in addition to normal duties, to act as Assistant to Sales Engineer. Experience in reinforced concrete work an advantage. Age about 25 years. Salary from £800 p.a., according to age and experience. Good prospects. — Write Box V.3211, "The Contract Journal."

**EXPERIENCED and TRAINEE TIMEKEEPERS, COST CLERKS and BONUS CLERKS REQUIRED** by prominent firm of building and civil engineering contractors in North-West. Good prospects for men who are keen to make progress. — Write details of experience and age to Box V.3216, "The Contract Journal."

**URGENTLY REQUIRED**, Three or Four Rogers 60-ton TRAILERS, 11ft. wide x 26ft. 6in. long, 21ft. 7in. high, sloping up to 3ft. 2in. at the rear, mounted on eight 1200 x 20 wheels at the front and 16 36 x 8 wheels at the rear, with triangular drawbar and air brakes. — Please send details to IOWARD HOWARD AND CO., LTD., Buying Department, 15 Buckingham Gate, London, S.W.1.

**EXPERIENCED PRODUCTION MANAGER REQUIRED** for our Shining Bank limestone quarry, Alport, near Bakewell. — Applications, giving full details of age, experience, and salary required, sent in the first instance to JOHN HINCICLIF AND SON, LTD., Barnsley Road, P.O. Box No. 3, South Elmsal.



BRITAIN'S LATEST MOTORWAY—THE MAIDSTONE BY-PASS (EASTERN SECTION)

**TEAM-BUILT by** **RICHARD COSTAIN** **and**  
*Limited*

It's never too soon to call in Costain's

F. W. H. Vallis, M.I.M.U.E., F.R.I.C.S.,  
 L.R.I.B.A., former County Surveyor,  
 Kent, who designed the whole  
 project with the exception of the  
 bridges which were designed by the  
 Consulting Engineers.  
*General supervision:* H. Bowdler,  
 M.I.C.E., M.I.M.U.E., Kent County  
 Surveyor.  
*Consulting Engineers for the bridges:*  
 Scott & Wilson, Kirkpatrick &  
 Partners.  
*Consulting Architects for the bridges:*  
 Arthur Bailey, O.B.E., F.R.I.B.A.  
 (Ansell & Bailey).

LONDON • BRISTOL • CANTERBURY • COVENTRY • GRAYS • MIDDLESBROUGH • PLYMOUTH

MIDDLE EAST • RHODESIA • NIGERIA • CANADA • WEST INDIES • SOUTH AMERICA • AUSTRALIA



# THE CONTRACT JOURNAL

INCORPORATING  
THE BRITISH CONSTRUCTIONAL ENGINEER AND THE CONTRACTOR

## THE CONTRACT JOURNAL

Incorporating  
THE BRITISH CONSTRUCTIONAL ENGINEER  
and  
THE CONTRACTOR  
Established 1879

No. 4,250 Vol. CLXXIX Dec. 8, 1960

Editor:  
LAWRENCE MCCARTHY

### PRINCIPAL CONTENTS

	PAGE
Ross Motorway Open to Traffic ...	1312
A Contractor's View on Effect of Design on Speed of Construction	1315
A Lawyer Considers .....	1317
Mechanisation of Filter Bed Cleaning: Use of Track-laying Machines	1318
Major Housing Scheme by Direct Labour .....	1321
In Parliament .....	1322
London Transport's New Central Laboratory Building .....	1323
Use and Control of Water: Great Problems Emerging, Minister Tells Engineers .....	1324
Costain's £7m. Opencast Contract	1324
Late Construction News .....	1324
Design and Construction of Motorways: Lessons Learned from the Consultant's Angle .....	1325
Holborn Swimming Bath is Incorporated in Office Block .....	1327
Men and Movements .....	1328
Modern Cleansing Depot Opened at Salford .....	1329
CURRENT CONSTRUCTIONAL ACTIVITIES:	
Projects .....	1330
Contracts .....	1334
Awards .....	1339
Civils Discuss I.C.E. Conditions of Contract .....	1346
Automatic Sewage Sampler, by Sir Herbert J. Manzoni, C.B.E. ....	1347
Talking of Safety, by "Dragee" .....	1348
New Technique Used on London Flats Foundations .....	1349
Trade Section .....	1351

### Publishers

The Contract Journal Co., Ltd.,  
32 Southwark Bridge Road, London, S.E.1.  
Telephone: Waterloo 3411 (7 lines).  
Telegrams: "Seejasir," Sedist, London.

### Subscriptions

"The Contract Journal" can be supplied direct from the above offices. Subscriptions, payable in advance: Yearly, £5 4s. (post free); half-yearly, £2 12s. An order form appears on page 1384.

### Advertisements

Advertisement rates may be obtained on application to R. Binfield, Advertisement Manager.

## ARE CONSTRUCTION COSTS TOO LOW?

THE construction industry has rarely, if ever, been so busy yet competition between firms often seems to be as acute as in the 1930's. Profit margins, it is said, are being cut to an extent which seriously hampers the ploughing back so essential to the future well-being of any industry, let alone one upon which so much of the national economy depends.

A recent issue of the *Board of Trade Journal* contained some illuminating information about the prices of the output of certain broad sectors of industry. It revealed that the following price increases have taken place since 1949. All manufactured products other than fuel, food and tobacco, 45 per cent.; chemical and allied products, 43 per cent.; iron and steel, 82 per cent.; products of blast furnaces and iron and steel smelting and rolling, 90 per cent.; textile products other than clothing, 30 per cent.; clothing and footwear, 22 per cent.; products of food manufacturing industries, 57 per cent.; paper products, 45 per cent. In the same table the rise in building and civil engineering costs, other than repairs, is given as 40 per cent.

In only two instances, therefore, namely textiles and footwear, both of which have been affected by purchase tax, has a rise in prices over the eleven years been less than the rise in building costs. Iron and steel prices have, in fact, risen as much again as building costs.

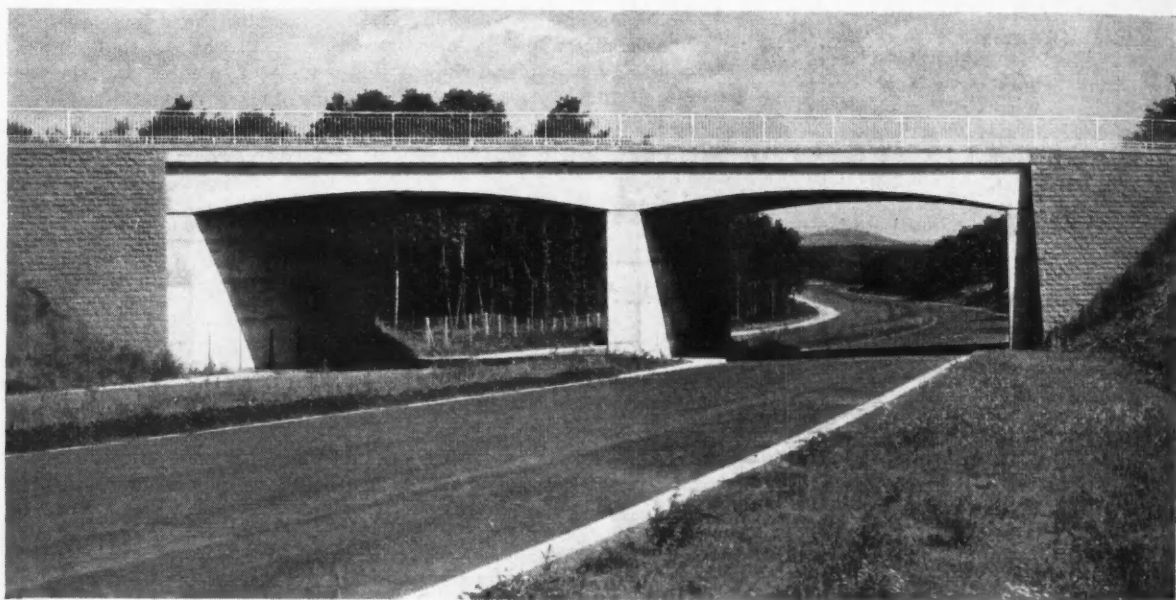
These comparisons are significant, for even allowing for the statistical pitfalls inevitably associated with them, they add weight to the growing belief that prices are at present too low. They explain, to some extent, why profits in building and contracting, according to the official National Income Blue Book, actually fell marginally between 1958 and 1959. They reveal some of the strain on the industry in trebling its expenditure on plant and machinery in the past ten years and provide yet another reason why the public must not be surprised if buildings cost more in 1961 and 1962. For an industry working on near negligible profit margins is in no position to set aside money for improving its organisation, equipment and methods. And that is precisely what building contractors must do if they are to avoid criticism and censure in the future.

## Burden of Snow Clearance

SHOULD snow clearance be treated as a national rather than a local service? In the winter of 1958-59 many counties spent over £100,000 on this service; in fact, one county spent as much as £350,000.

More and more traffic is now using our highways and there is a constant demand for better gritting and removal of snow. But this service places a heavy demand on the authorities and Mr. R. R. Dalton, county surveyor of Kesteven, suggests the time is arriving when the cost should be the subject of an increased grant from the Government. He points out that this service is carried out mainly in the interests of through traffic and is therefore national rather than local.

While the Government may not feel disposed to increase the grant at the present time there is no reason why they should not take action on a second suggestion made by Mr. Dalton. That is that service lorries should be equipped with snowploughs and put to work helping to clear blocked roads rather than stand idle in their depots. Here is a practical suggestion which would cost little money and one we hope the Government will accept.



Three of the bridges spanning the motorway

## ROSS MOTORWAY OPEN TO TRAFFIC

**£6 Million 21-Mile  
Dual-Carriageway Route**



Aerial view of two-level type interchange at Jay's Green (contract No. 1)

**D**ESIGNED to provide a fast new route between the industrial Midlands and South Wales, the £6 million Ross Motorway was opened last week by Mr. Ernest Marples, Minister of Transport.

Route M.50, as the new Motorway will be shown on future maps, starts near Tewkesbury and passes through undulating country to the outskirts of Ross-on-Wye, a distance of 21 miles. At the eastern end, it will be linked with the northern section of the Birmingham-Bristol motorway now under construction, but pending completion of this northern section there

is a temporary connection with the A.38 at Brockridge Common.

At the western end, the Ross Motorway connects with the newly opened Ross By-pass, which, though not restricted to motor vehicles, is an essential part of the motorway scheme. The By-pass is carried over the River Wye and the Wye flood plain by the 353ft. Bridstow Bridge with its associated embankments, 2,000ft. long.

From the western end of the Ross By-pass at Wilton in Herefordshire, the existing main roads—all of which are to be reconstructed—lead on to Swansea via the

Heads of the Valleys Road and to Newport and Cardiff.

### Four Contracts

Within its effective width of 88ft., the Motorway has dual 24ft. wide carriageways and a central reservation 15ft. wide. White marginal strips a foot in width mark the edges of the carriageways. The maximum gradient is 1 in 25, and it is designed for speeds of up to 70 m.p.h. About 2,250,000 cu. yd. of rock and soil have been excavated over the route.

Construction of the Motorway is divided into four contracts. Contract No. 1, for which Tarmac Civil Engineering, Ltd., are



Aerial view of Bridstow Bridge



the contractors, covers the Herefordshire section of the Motorway, just over seven miles long. It is divided into two parts: the Ross By-pass and the Ross Motorway.

Contract No. 1 starts just east of the Gloucestershire / Herefordshire County Boundary and for the first mile passes through the extensive Dymock Forest. The Forestry Commission cross the Motorway by one underpass.

One of the two intermediate points of entry on the Motorway is at the edge of Dymock Forest (the other being in Gloucestershire). The interchange is of the two-level type, with a bridge of beam and slab construction, having two 41ft. spans to carry the Ross-Newent minor road over the Motorway and to provide the necessary connections for the traffic entering and leaving the Motorway.

From the interchange to the end of the Motorway the country is very undulating, and cuttings in rock and embankments reach over 30ft. in depth in several places. On this length there are five minor roads to cross; these are all dealt with by over-bridges or underbridges; there are also two underpasses to afford safe passage to workers on severed farms.

#### Ross By-pass

From the terminal point of the Motorway for a length of  $\frac{1}{2}$  mile, the existing A.449 has been improved and a second carriageway added to form the By-pass. After this, a new line is taken to the north of Ross, to pass under the Ross-Brampton Abbotts Road; the latter is carried by a two-span hollow slab concrete bridge, the deck of which is seated on rubber bearings. The cutting to the west, mainly through rock, is over 35ft. deep at its maximum.

At the western end of the cutting the By-pass is carried over the Ross-Hereford Railway and an unadopted road by a two-bay portal frame bridge in reinforced concrete.

From here the By-pass crosses the flood plain of the River Wye on an embankment 2,000ft. long with a maximum height of 33ft. Seven flood relief arches are built into the embankment which crosses the River Wye by Bridstow Bridge.

#### Bridstow Bridge

The bridge is a three-span structure with a total length of 353ft.; a 203ft. clear span in the centre and two approach spans each 75ft. long. It carries a dual carriageway and is supported by reinforced concrete piers, one on either side of the

river; reinforced concrete abutments terminate the structure at both ends.

The bridge consists of prestressed concrete approaches with cantilever spans to support the prestressed concrete suspended span, for which there are nine main beams, interconnected by reinforced concrete diaphragms, which support the reinforced concrete deck slab.

rough square quarry-faced ashlar. The remainder of the concrete structure is left exposed and given a surface texture by point tooling. At the western end of the Wye flood plain the By-pass terminates in a roundabout at its meeting with the Hereford Road (A.49) Monmouth Road (A.40) junction.

Westwards, a further  $\frac{1}{2}$  mile of dual



Beaconshill Bridge (contract No. 2)

The decks are topped by a concrete screed laid to falls covered by a bituminous sheeting water-proofing membrane, protected by quarry tiles. The bridge deck is then surfaced with hot rolled asphalt.

The dual carriageway on the bridge is divided down the centre by a strip of precast concrete paving slabs, flanked by concrete kerbs. A similarly paved strip extends along each side of the bridge, terminated at their outer edges by concrete kerbs set with railings of tubular steel.

The mass concrete pier foundations are continuous and extend some 16ft. below the level of the river banks to a bed of red sandstone rock. The upper parts of the pier foundations and the abutments on either side are faced with random

carriageway has been provided on the existing A.40 towards Monmouth.

#### Road Construction

The sub-base consists of a crushed stone (maximum size 3in.) varying in thickness from 0in. to 10in. dependent on the formation, which varies from rock cuts to fills.

On this is laid two 4in. layers of Cem-Mix. This is a lean concrete with 3 per cent. cement, the top layer being sprayed with a bitumen emulsion for curing purposes.

The blacktop consists of a 3in. thick basecourse of 1½in. nominal size bitumen macadam and a final running surface of 1½in. of hot rolled asphalt.

Drainage is of two principal types: (i) (Concluded on page 1320)



Motorway passing through Dymock Forest (contract No. 1)

## A CONTRACTOR'S VIEW ON EFFECT OF DESIGN ON SPEED OF CONSTRUCTION

**DELAYS** in the flow of information on a contract were one of the chief causes of delay in construction and could more than offset any saving in time which might have been achieved in the design, said Mr. A. Raymond Mais, O.B.E., managing director of Trollope and Colls, Ltd., when he gave a Yerbury Foundation Lecture in London recently.

It was not generally realised that a delay on one section of a contract, even though there might be work available on other sections, could result in a general decrease in overall progress and output which went far beyond that directly due to the delay itself, he stated. Once a contract had lost tempo, it was extremely difficult to restore it.

Mr. Mais, who was speaking on "The Effect of Design on the Speed of Construction," said during the course of his lecture:—

Many architects I know appreciate that speed during construction starts on the drawing board, these are frequently the ones who have had site experience and in their case the need for prior consultation with a contractor may not be so essential, but undoubtedly some form of early consultation, no matter how experienced the professional advisers may be, must inevitably have a beneficial effect on the ultimate speed of the project.

It will be appreciated that a contractor's knowledge of the effect of design on the speed of construction is first-hand and derived from the work of many architects and engineers on a variety of buildings. It must be realised that the measures taken during design in order to speed the progress of the work may sometimes slightly increase the initial capital cost, but these must be set against the savings which will accrue to a client by an early completion. It is appreciated that not all clients require their buildings completed quickly if it involves additional cost, and only the professional advisers in consultation with their client can decide this point, but it is one which should be examined, and a decision reached, in the very early stages of a project.

In recent years we have seen the introduction of what is known as the "package deal." This has been brought about due to building owners thinking, that by obtaining limited competition not only on price but on design direct from the contracting industry, they will save not only the fees of their professional advisers but also obtain a scheme which is both economical and capable of rapid erection. It is my opinion that unless there is an improvement in the co-operation between the professions and the industry working as a team, there is a danger that the "package deal" will gain in popularity, and personally I doubt whether this is either good for the client or for the industry.

If one considers broadly the time taken for the erection of a typical office building, it might be said that about one-third of the erection time is taken on foundations and sub-structure, one-third on the superstructure and cladding and a third on services and finishes. From this it is evident that the construction time is divided approximately equally between structural design and architectural design.

The structural designer is limited in his choice of design, but is subjected to fewer individual requirements and may incorporate features which have been found on previous work to reduce the cost, the time, or both.

The architect, however, often has a wide choice of alternative layouts for the building, its services, materials for its cladding and internal finishes.

It is probably true, therefore, to say that the architect, through this wider

choice of alternatives, exerts the greater influence on the speed of construction and upon him therefore rests the main responsibility.

### Foundations and Retaining Walls

#### Foundations

Dealing with the major problems which face the design team the first is probably the choice of foundations—whether these should be normal footings or piles. For the high tower blocks, where the average pressure per square foot of the building is greater than the safe bearing pressure of the ground, and the consequences of an unequal rate of settlement would be more apparent, then piles are probably an essential feature of the design, but for normal buildings of, say, eight to ten storeys, piles should only be used where suitable ground for footings is not available at shallow depths. This seems very obvious and it would not have been mentioned but that there seems to be a growing tendency to pile where normal footings have been used in the past and have proved to be perfectly satisfactory.

Such piling can add considerably to construction time, especially where basement retaining walls have to be constructed in trench and the piling may have to be carried out in difficult conditions between trench timbering. This tendency to choose piles has been brought about by fears of settlement, a word which occurs so frequently in soil mechanics' reports. Most structures on normal ground settle. Generally the whole surface of London has settled about 6 inches in the past 100 years, but there are no signs of serious cracks in our buildings or the disruption of services. It is not settlement but the rate of settlement or unequal settlement which matters. I mention this point in some detail, not because I am against piled foundations but to stress the fact that one of the first considerations when designing with a view to speed is the type of foundation to be adopted. Time lost at this stage can hardly if ever be recovered.

#### Retaining Walls

The designs of basement retaining walls can also be a frequent delay on a contract. Basement retaining walls should be designed for two conditions:—

- (1) The temporary condition when they are acting as a cantilever whilst the centre dunnage is excavated and before the construction of the central core of the building.
- (2) The final condition, as a slab spanning vertically from floor to floor. The most common method adopted for the excavation and construction of sub-structures is first to construct the retaining walls in trench and only after they have been completed is the dunnage removed—this frequently gives the impression to the uninitiated of a slow start. It is however very doubtful whether the method of excavating the dunnage first shows any saving in time. There is no doubt from my experience that in cities where it is vital to safeguard adjoining streets and/or property the only safe method of constructing the basement retaining wall is in trench, and frequently it is also the quickest.

#### Frames

The next major decision facing the engineer is the choice of the type of frame, whether to use steel or concrete. In the past it has so frequently been said that a steel frame is cheaper and quicker than a reinforced concrete frame. Ten years ago Oscar Faber wrote:—

"It may be said, as a result of much experience in design and estimating both steel and reinforced concrete buildings, that for

ordinary multi-storey buildings and the like, reinforced concrete is about 30% more economical than steel uncased and about 40% more economical than steel cased."

No doubt there has been a change in the relative prices of steel and reinforced concrete since that was written. I would not, therefore, care to be too emphatic about the percentages stated. It does, however, give a fair picture of the greater cost of a steel frame protected to conform to the requirements of the fire regulations. And it is a fact that a multi-storey building with a steel frame complete with its floors and concrete casings will take a month or two longer to complete than a similar building with a reinforced concrete frame.

During the two or three months period for steel erection the main contractor cannot proceed with the concreting of floors until the steelwork has been plumbed and he can proceed in safety clear of the steel erectors. From that stage the construction of the floors will proceed at about the same pace on a steel or concrete frame and the lost time in the early stages cannot be regained. On the other hand, it must in fairness be admitted that a steel frame has advantages if at some future date alterations become necessary. It is usually easier to strengthen or alter steelwork than reinforced concrete.

Whilst on the subject of frames, mention should be made of the desirability of standardising beam and column sizes in order to obtain the maximum possible uses from the formwork. This has been said so often before that it must seem obvious and I hesitate to make reference to it, but unfortunately, judging by experience, it is necessary to make this plea again in the interests of speed and cost. When you consider that it may take a carpenter two or three hours to alter a beam or column shutter and that this may be repeated hundreds of times on a contract, the sum total of such minor alterations can easily amount to half a week to a week per floor. That might not sound very much, but the sum total could add four to eight weeks to the construction time of the superstructure.

Our work is carried out in difficult conditions, exposed to the weather and with a labour force liable to frequent change. In order to overcome the delays resulting from these conditions attempts have been made for many years to precast a part or all of the reinforced concrete frame. By this means a great deal of the work is carried out under factory conditions with a reasonably stable and skilled labour force.

It is alleged that there is thus a saving in the cost and in the time of erection. Certainly I would agree that there is a saving in the cost of shuttering by eliminating a great deal of it and by allowing greater opportunities for repetitive use. Unfortunately some, if not all of this saving is lost in the cost of handling and transporting heavy and awkward units from the factory to the site.

So far as the saving in time is concerned, one must be careful not to generalise but I know of one precast frame now in course of erection which has averaged about four weeks per floor. Normally a similar frame cast in situ should not have taken more than an average of about two weeks per floor. Under the right circumstances an average rate of one week per floor can be achieved. I doubt whether there is any saving in time or cost by using precast concrete framing instead of in situ for multi-storey buildings.

This is not intended as a condemnation of all precast work. Precast concrete has proved to be very suitable on occasions—for example, for single-storey industrial buildings particularly where there is standardisation. Recently a factory of

45,000 sq. ft. was roofed in three weeks by the use of curved precast prestressed concrete units spanning 55ft. This rate of covering a large area could not have been achieved economically with in-situ concrete. Precast concrete framing may also be suitable where climatic conditions cause outside construction work to be halted.

Before leaving the question of frames, may I make one last plea to those designing with a view to rapid construction—whatever type of frame you may finally adopt try to avoid a mixture of different systems such as I experienced a year or two ago of part prestressed precast concrete units, part precast units and part in-situ concrete—this resulted in uneconomic use of cranes, insufficient work for site concrete gangs and time, 4½ weeks per floor.

The speed of erection of a reinforced concrete frame is usually determined by the shuttering gang and not the concretors. If speedy construction is required then, as already mentioned, it is necessary to make every effort in the design to simplify the shuttering in order to produce clean straight lines and to eliminate time-consuming labours on beams, corbels, nibs and shaft walls. Shuttering problems are greatly simplified by using the flat plate construction, thus eliminating internal beams, with resultant savings in time and cost.

#### External Cladding

With respect to speed, the essential requirement for the cladding is that it shall be chosen and designed to allow the least lapse of time between the frame construction and the complete enclosure of the building.

There can be no doubt that in meeting this requirement there is scope for greater development in prefabrication. The Americans are far ahead of us in the matter of prefabricated cladding; whether we would like the finished product is another matter but certainly if we are to speed up still further our construction programmes, in particular for tall buildings then prefabrication must receive more attention than it has heretofore.

I have now mentioned some of the major factors which affect the speed of construction, but I feel I must depart slightly from the strict terms of my reference. It is quite useless to prepare designs which will help to increase the speed of construction if the detailed plans and necessary information do not reach the site in time to allow the contractor to properly plan his work well in advance. As I have already mentioned, and I think every contractor will agree with me, the major cause of delay on any building contract is not unimaginative design but more often late receipt of information.

#### Effect of Speed on Cost

In my brief I was asked to comment on the following: (i) Effect of speed on cost; (ii) relationship of height to cost and speed; and (iii) relationship of layout and shape to cost and speed.

#### Effect of Speed

This is a matter to which I have devoted much thought and time during the past few years. I personally went through a period when I felt that all contracts should be speeded up and that a fast contract was usually an economic and satisfactory contract to all concerned. This, of course, is not so and it is quite impossible to generalise.

All contracts have their own characteristics but there is an economic speed for all. It is a difficult thing to judge, but it is one to which great care should be given in the planning stage of any project, because if you exceed the economic speed or fall behind it, it will probably cost you money. I would say, generally speaking, that having decided on the economic speed, it will cost you more if you fall behind programme than it will if you accelerate the progress, but un-

doubtedly to force the progress of a job beyond the economic speed will increase the cost of construction. This, of course, again must be offset against any money saved by the building owner by an early completion.

Also under this heading I must again come back to the question of availability of drawings and information. So frequently a contractor is asked to bring forward the completion date of a job beyond the economic point, only to find that the maximum use of the additional labour and plant provided cannot be made because the production of information and plans cannot also be speeded up to meet the new programme. There is one other factor of which one must not lose sight. If a job is speeded up it creates a sense of urgency and the operatives are conscious of this and outputs may fall, in spite of full employment there is still a somewhat natural reluctance to "work oneself out of a job."

#### Height

As yet it is difficult to accurately assess what extra cost is involved for the construction of tower like structures, and opinions may differ widely. We have really not as yet constructed a sufficient number of tall buildings in this country to obtain an accurate comparison, therefore any remarks made are of necessity given from a limited experience.

My experience has been that to construct a building of, say, 15 or more floors in height exceeds the cost of a traditional building of six to eight floors by between 6d. and 9d. a foot cube. However, a tower building must take longer to complete than would a six- or eight-storey building providing the same total floor area.

It is obvious that buildings in future must spread upwards rather than outwards, and it is on the tall buildings where, I think, we have considerable scope for research in order to speed up construction methods and design. Undoubtedly one which must be examined is, as already mentioned, the method of cladding.

#### Layout and Shape

I think this is a difficult point on which to comment, because the main factor affecting speed and cost in so far as layout is concerned, is connected with construction methods and the type of plant to be used, to select a most obvious example, the reach and lift of the cranes to be employed. Now unless it is a negotiated contract in which the contractor is appointed in the very early planning stage, the architect cannot know what plant or methods the contractor will in fact use. He therefore basically must plan to suit the site, his client's requirements and his own conception, and it is only later that it may be found that this provides a somewhat difficult contract to construct.

Further than this I would prefer not to comment.

#### American Impression

Giving some of the impressions gained on his recent tour of America and Canada in so far as they affect the relationship of design on the speed of construction, Mr. Mais continued:—

I went expecting to discover that as a contractor our American cousins would have a great deal to teach us with regard to organisation and speed. I found this to be an entirely wrong assumption—we could teach them a great deal. The comments that I am going to make do not relate to the heavy civil engineering work we saw, but to buildings, mainly offices and factories.

For the purpose of comparison, let us take an office building which, in this country, would take us, say, 24 months to complete. As mentioned earlier in this paper, this can approximately be divided into three periods, i.e. the sub-structure, the frame and cladding of the building and the internal finishings, and although obviously all buildings vary it is not un-

reasonable to say that the time required for each of the foregoing sections is about the same. For instance, on the 24-month contract 6/8 months would be taken for the sub-structure, approximately 6/8 months for superstructure and cladding and 10 months for the internal finishings.

Now this is not the case in America. We saw a considerable number of contracts, and the time taken below ground is roughly the same as we take in this country. The frame, if it is of reinforced concrete, is also much the same, it is on the cladding and the finishings that the time is saved, a multi-storey building is clad by means of curtain walling in a matter of weeks, and on several large buildings it was found that from the time the building was wind and water tight all the internal finishings were completed in 3/4 months.

This was entirely due to the almost complete elimination of wet trades. Joinery also was almost, if not completely, non-existent, doors and frames were in aluminium as were the windows. Internal partitions came ready finished and the ceilings were almost without exception formed of acoustic tiles left undecorated. In other words, with the exception of plastering and painting to the enclosure walls to lift and stair wells there was little or no plastering and painting in the building.

The maintenance cost for the exterior and interior was very low, and on a number of buildings as far as the exterior was concerned it just did not exist.

#### Approach to Finishing

Now let us be quite clear that this very substantial saving in time is due to an entirely different approach to the finishing of a building and is something which the contractor cannot control. It can only be started in the architects' office and the architects cannot be held fully responsible. The problem is in the education of the client to accept a more austere finish. Whether he will or whether we want to persuade him to is an entirely different matter.

I gained the impression that much of this type of construction and the elimination of the elaborate finishings have been brought about due to the high cost of labour, in particular craftsmen. There was in fact a great shortage of highly skilled carpenters and joiners.

#### Tendering Method

Another point on the design which obviously greatly affected the speed of the contract was brought about by the method used in America and Canada for tendering. Let me say before I go any further that I do not want to see this method adopted in this country, but nevertheless it did have an effect on speed, for as you probably already know only too well, quantity surveyors as we know them do not exist in North America, therefore the architect is compelled to plan his project in detail before he invites tenders, with the result that the contractor is in possession of nearly all the information he requires before he starts his job.

#### Attitude to Concrete

I cannot conclude without referring to the American attitude to concrete. In this country we seem to be forever trying to produce a drier mix—with ever increasing difficulties in placing. Nearly everywhere we went in America we found that the slump for sub-structures and foundations was seldom less than 4in. and frequently as high as 6in. and for beams, columns and floors it was between 3½in. and 5in. This enabled concrete to be placed very easily and quickly, the yardage placed each day was very high and the finish obtained was naturally excellent. The general policy was to decide upon the maximum quantity of concrete capable of being placed per day and to provide sufficient formwork to enable this to be achieved regardless of the number of uses obtained.





Britain's most revolutionary Compactor  
—the Armstrong Whitworth 'Albaret'  
self-propelled pneumatic tyred

# isopactor

Unique 'Isostatic' principle guarantees constant wheel loads—  
eliminates 'soft spots'.

- \* Absolute coverage with a single pass.
- \* The most productive units in the world today.

**For all highways, airfield runways, earth dams, etc.**



**ARMSTRONG WHITWORTH**  
**(Metal Industries) LIMITED**

Close Works, Gateshead upon Tyne 8.  
Tel. Gateshead 71261

And to complete the range—  
the AW Albaret Autopactor  
and Trailer Compactor.

Write for full details.

**NOW!** Instant  
gear-or-direction  
shifts  
under full load!



# Cat D8H with new **POWER**

*Available from Great Britain*

## **How Cat D8H + Power Shift Transmission = Higher Production**

Total engine power is divided by a planetary gear set—part through direct drive to the transmission, remainder through a torque converter, to combine positive operation with flexibility. A single finger-tip control replaces gearshift, forward-reverse and flywheel clutch levers—shifting is so easy, with minimum operator fatigue, resulting in increased production. On push-loading, bulldozing, all heavy earthmoving jobs, the mighty Cat D8H with Power Shift brings you faster operations, shorter cycle times, greater productivity. See your Cat Dealer for complete details on the new Cat Power Shift . . . how it works . . . its operating ease . . . its improved productivity.

The CAT D8H is also available with Direct Drive or Torque Converter.

# **CATERPILLAR**

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

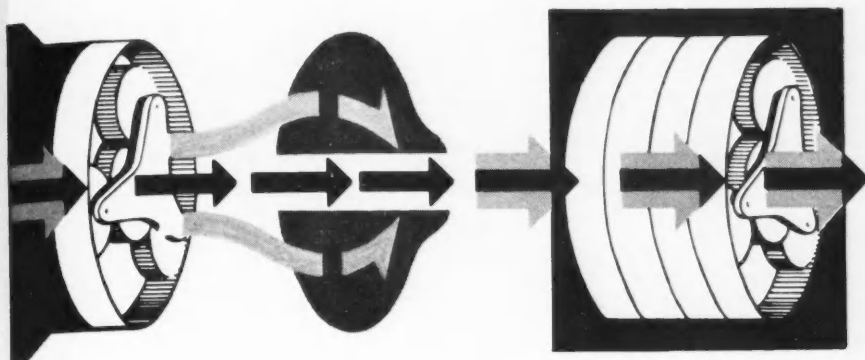
**Born of Research  
Proved in the Field**

TRACTORS • EARTHMOVING EQUIPMENT • ENGINES • PARTS  
**CATERPILLAR TRACTOR CO. LTD.**

Registered User of Trademarks Caterpillar and Cat

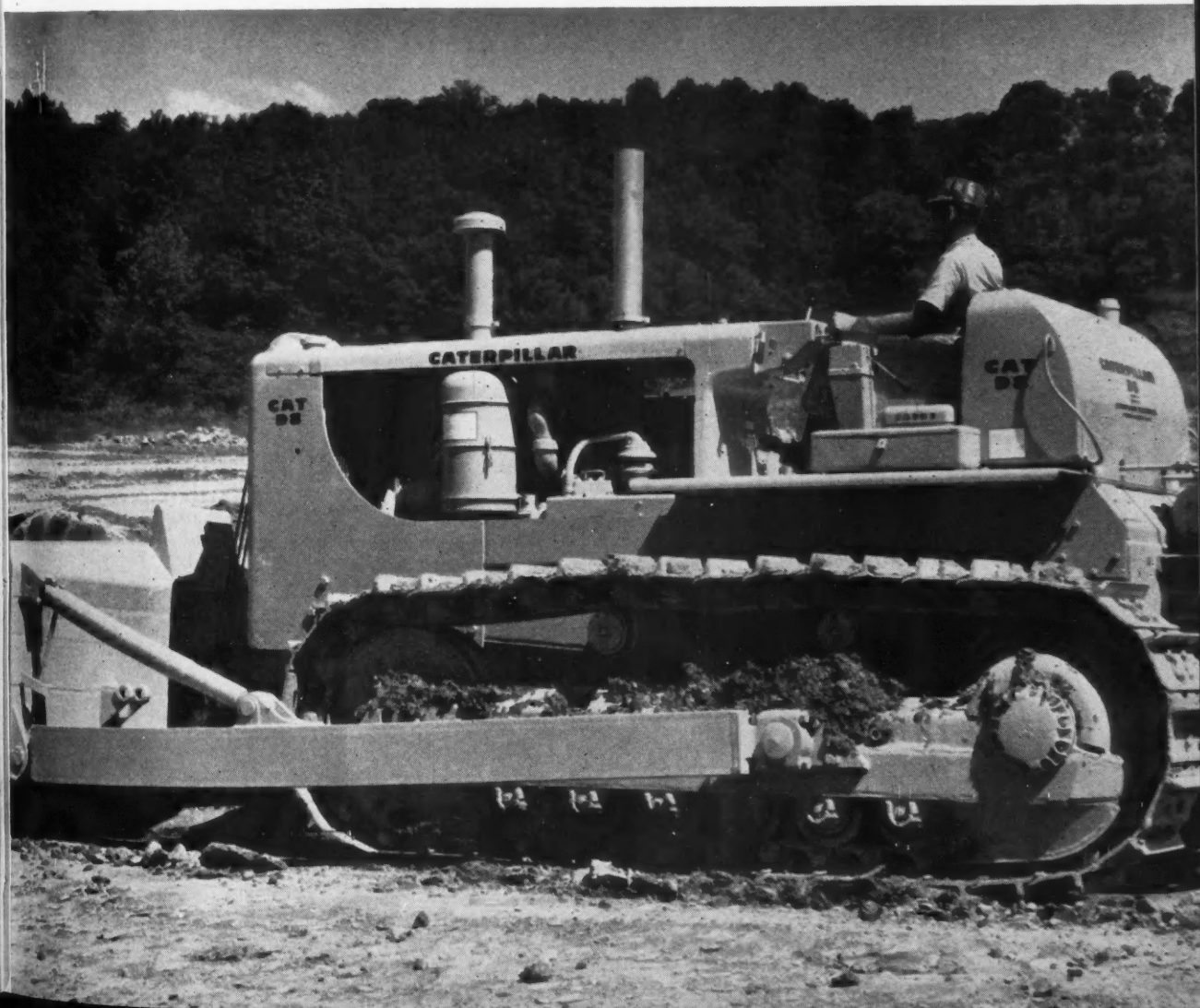
GLASGOW • LEICESTER • NEWCASTLE • LONDON





To the impressive strength of the Cat D8H is now added POWER SHIFT, the revolutionary new Caterpillar transmission that combines the positive operating efficiency of direct drive with the anti-stall and flexibility features of torque converter. Even on the toughest, track-type jobs, this means split-second, clutchless gear-or-direction shifts under full load without loss of power

# SHIFT TRANSMISSION





# LEVERTON PRESENT

## the most up-to-date Track Reclamation Service in Europe for Caterpillar Crawler Tractors

The newly constructed track component reclamation centre recently opened by Leverton of Leeds Ltd., is designed and equipped as the most modern and up-to-date production shop of its kind in Europe.

This project was undertaken after extensive research, both at home and in the United States, by a selected team of experts. Their findings have been the basis of operation for the construction and equipping of the new track reclamation centre, which incorporates the finest submerged arc welding equipment available and utilises the latest technical advances in the field of track component rebuilding.

- ★ Collection and delivery are free.
- ★ Standard charges for ALL operations.
- ★ Top quality job every time.

A NEW LEVERTON SERVICE - AS CLOSE AS YOUR PHONE

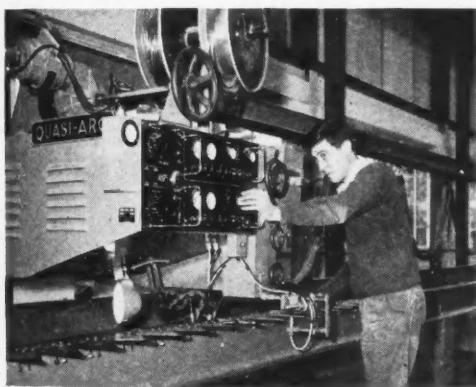
# LEVERTON

YOUR CATERPILLAR DEALER

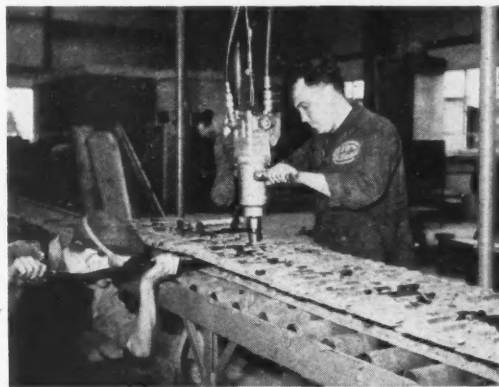


**LEEDS**, Gildersome, Leeds. Tel: Morley 4221. **SPALDING**, Spalding, Lincs. Tel: Spalding 3221  
**WIGAN**, Wigan Rd., Bryn, Ashton-in-Makerfield. Tel: Ashton-in-Makerfield 7675. **NEWCASTLE**, Team Valley  
Trading Estate, Gateshead. Tel: Low Fell 78511. **ROTHERHAM**, Meadow Bank Rd., Rotherham. Tel: Rotherham 78259

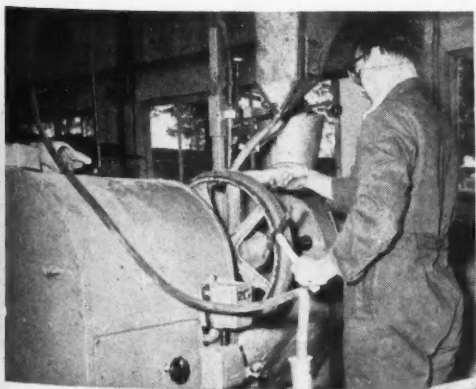
Caterpillar, Cat and Traxcavator are Registered Trademarks of Caterpillar Tractor Co.



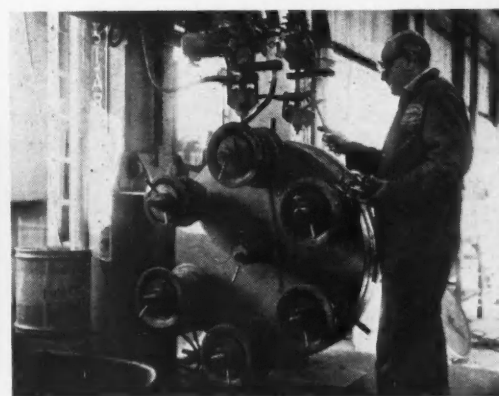
A close up of the track link machines showing the new Quasi-Arc automatic Welding Heads and Control Panel. The adjustable templates, together with the "Magic-eye" which controls actual welding operations, can be seen attached to the machine bed.



Hydraulically actuated torque wrench in action replacing track shoe bolts on a Traxcavator track assembly. This wrench can be instantly adjusted to ensure the correct manufacturers torque settings, on the full range of Caterpillar machines.



Worn front idler receiving new life by submerged Arc Welding process. The idler rotated between centres can be rebuilt to specified limits on all wearing surfaces without removal from the welding unit, thus saving time and labour and reducing machine "down-time."



A Quasi-Arc multi-spindle twin-headed track roller rebuild machine in operation. This machine uses the fuse-melt process and produces a wear-hardening finish which does not require further machining.

# IT'S HERE IT'S NU

Yes...It's here! The NEAL-UNIT NU1620 EXCAVATOR. Tough! Rugged! Completely reliable! A time and work-improved design. Providing faster front end conversion and offering unrivalled earthmoving economy and efficiency. But don't just take our word for it! **See it in action** and examine these features \* for yourself

## **UNIQUE STRAIGHT-THROUGH POWER FLOW**



eliminates chains... transforms engine power into digging power... faster... better.

**LESS FRICTION LOSS—MORE POWER**—means more yardage less cost with the NU 1620.

**LONGER CLUTCH LIFE**—with easy-to-adjust, smooth-operating disc type clutches.

**BETTER ALL-ROUND VISIBILITY**—no bulky cladding to restrict vision.

**OIL BATH GEAR PROTECTION**—in one piece gear case promotes longer service life.

**UNIT CONSTRUCTION FOR EASIER MAINTENANCE**—allows less downtime and more profitable work cycles.

**ALL-BEARING SLEWING RING**—ensures smooth slewing under maximum loads... needs no adjustment.

**FASTER CONVERSION**—Split drums and sprockets provide fast, easy conversion of front end attachments.

Plus these: Low overall height; any position slewlock; multi-hinged, self-cleaning tracks; automatic traction brakes.



**Engineered to Meet  
and Beat the Best in  
Advanced Excavating Equipment**  
**NEAL-UNIT NU1620**  
**EXCAVATOR**



# THE \* NEAL-UNIT EXCAVATOR MODEL NU 1620



DRAG SHOVEL  
FACE SHOVEL  
DRAGLINE  
CRANE  
GRAB  
MAGNET



## R. H. NEAL & COMPANY LIMIT

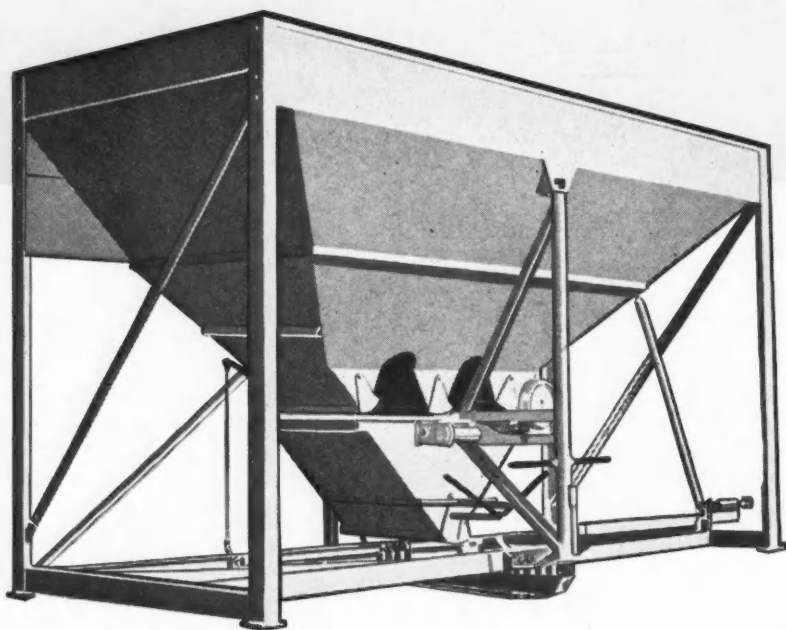
HEAD SALES OFFICE: 143 SLOANE STREET,  
LONDON, S.W.1.

SALES & SERVICE: LONDON, BRISTOL, BIRMINGHAM,  
MANCHESTER, LEEDS, NEWCASTLE,  
GLASGOW

## Plus or Minus one per cent

### —There's Blaw Knox accuracy for you!

The fine accuracy of weighing reflects the advanced standards of design to which the Blaw Knox 'Batchmaster' is made. So do the remarkably low loading height and robust simplicity. Batchmasters are made in three sizes to hold 20, 30, or 42 yards of aggregate. Each size is available with 3 or 4 compartments plus cement bin. The Batchmaster is designed to feed one or two Concrete Mixers—speedily, accurately. The Batchmaster is quickly, easily moved from site to site. No erection, no dismantling—just assemble the drawbar and pneumatic tyred wheels and tow to new location.



# BLAW KNOX

Design... thinks ahead—stays ahead

# A LAWYER CONSIDERS . . .

## Conditions Imposed by Planning Authority — Contracts with Local Authorities — The Offices Act, 1960

THE case of *Fawcett Properties, Ltd. v Buckinghamshire County Council* [(1960) 3, All E.R. 503], discussed in an article in *The Contract Journal*, June 11, 1959, has now been decided by the House of Lords. It will be of interest to all contractors who carry out development and thus need planning permission.

The facts briefly were that a local planning authority gave permission for the erection of a pair of farm workers' cottages subject to the following condition: "The occupation of the houses shall be limited to persons whose employment or latest employment is or was employment in agriculture as defined by Section 119 (1) of the Town and Country Planning Act, 1947, or in forestry, or in an industry mainly dependent upon agriculture and including also the dependants of such persons as aforesaid."

The reason given for making this condition was because the council would not be prepared to permit the erection of dwelling houses on the site unconnected with the use of the adjoining land for agricultural or similar purposes. When this planning permission was given there was no development plan in relation to this land but its inclusion in a green belt was envisaged.

This condition was challenged by F. Ltd., who had bought the houses subject to this planning control, as being of no effect because it was beyond the planning authority's powers to impose or because it was too uncertain in its meaning and effect.

In deciding these questions the House of Lords adopted, as so often in this kind of case where the decision of an administrative body with wide powers is under review, the attitude that the courts were not empowered to decide what is or is not the proper administrative decision to come to; that is for the administrative body itself acting within the four walls of the powers granted to it; all the courts can do is to take the far more limited action of deciding—is this a decision, in this case a planning permission, which no reasonable planning authority could impose? Whether or not the court approves of the actual decision is beside the point; if the decision is one which in the exercise of its powers an administrative body can make then only if it is the sort of decision that no reasonable exercise of those powers could produce will the courts intervene to alter or quash that decision.

Now quite clearly the right of a planning authority to impose planning conditions as to who can or cannot use or live in certain buildings whose development is permitted is within the powers of planning authorities; such conditions are frequently imposed. The real question therefore was—has the planning authority here so badly worded its condition that its operation is so uncertain and unclear that, despite its undoubted right to make conditions of this kind, this particular condition ought to be set aside as it is not within a planning authority's powers to make unclear and uncertain conditions.

One may be forgiven for thinking that the difficulties of interpreting what this condition really means are rather great and that the House of Lords were, with respect, over-kind in seeking to uphold its validity. Could anything be more unclear or vague than the condition that occupation must be restricted to persons whose "employment is . . . in an industry mainly dependent on agriculture"; what of a man employed in a food canning factory or in a shoe manufacturer's factory whose leather comes from the work of farmers? Would he be permitted to occupy these houses? Or would the owner who per-

mitted occupation by such people be breaking the planning condition and thus liable to an enforcement notice and, on failure to enforce the condition, criminal proceedings?

Indeed, it was such considerations that made the owners F. Ltd. contend that the condition so imperfectly expressed and defined the persons to whom the occupation of the cottages has to be limited and with such lack of precision that many cases might occur in which no owner of the cottages could tell, and no court could decide, whether by letting a given person into, or allowing him to remain in, occupation the owner would be in breach of the planning condition.

The House of Lords were not, however, willing to say that the condition was so uncertain that it must be held to have no effect. In Lord Denning's view, "a planning condition is only void for uncertainty if it can be given no meaning or sensible or ascertainable meaning and not merely because it is ambiguous or leads to absurd results." In Lord Jenkins' view a planning condition "cannot be invalidated on the ground that in certain hypothetical cases it might be fraught with untoward consequences. . . . I think it would be unreasonable to hold the condition invalid on account of the theoretically possible emergence of cases in which the eligibility of the would-be occupants . . . would be open to doubt." The condition was therefore allowed to stand.

One may venture to think that the House of Lords have dealt very gently with this badly worded planning condition which is almost bound to cause, in future years, worry and expense to see exactly what it means, and whether or not it is being kept or broken. Developers ought therefore to take even greater care than in the past to scrutinise the exact terms of any planning permissions granted and any conditions attached thereto; uncertainty in this matter might well reduce the value of the development to future purchasers whose solicitors would be unable conscientiously to advise purchase of a property or land subject to uncertain planning conditions. Developers ought therefore to see if the terms of their planning permissions are, however restrictive and not what they desired, at least clear in what they state. If unclear it is probably wise to appeal to the Minister and try in that way to get the planning conditions more clearly expressed.

### Contracts with Local Authorities

MANY contractors will remember with a certain horror the case of *Wright v Romford Corporation* in which a contractor's claim against a local authority was defeated by the highly technical defence that the contract had not been made under the authority's seal and was thus not binding on them. Had it been made under seal it would have been so binding and the contractor would have been entitled to recover his money.

The morality in these days of putting up such a defence to an otherwise proper claim seemed to many people rather poor, to say the least, and the Lord Chancellor's Law Reform Committee recommended in 1959 that the rule should be got rid of; it was very often not observed and could produce the sort of unjust results it gave in *Wright's* case. The Committee therefore recommended that, like any ordinary company, a corporation should be bound by the contracts entered into by those who have the corporation's express or implied authority to enter into such contracts. In

recommending this over-due reform the Committee were incidentally going against the view of the influential Association of Municipal Corporations.

Luckily, and more speedily than most governments act on the recommendations of expert committees, the Corporate Bodies Contracts Act, 1960, has been passed. Local authorities have now been placed in the same position as private individuals and companies under the Companies Acts as regards entering into contracts. It would, however, still be prudent for contractors, if they have any doubt about any instruction or order issued to them by a servant of the local authority purporting to bind the local authority, to ask the authority's clerk if that instruction or order has the authority's approval.

### The Offices Act, 1960

IT is sometimes stated, with perhaps some justification, that office workers have to put up with conditions which no factory worker is obliged to tolerate. This new Act has therefore as its main purpose to make further and better provisions for health, welfare and safety in offices and for purposes connected therewith. The Act comes into force in January, 1962.

The reason why its operation has been delayed is because its operation will depend on the issue of detailed regulations and time will obviously be needed to consult with interested bodies before preparing and issuing these regulations. Indeed, there is some reason to suppose that the Act itself will never come into effect because the government will replace this private member's Act with one of its own and this may be expected to be more comprehensive. Employers can therefore reckon that, in the not too distant future, they will have to consider the state of their offices and perhaps set aside monies for the improvement of their facilities.

Some idea of the scope of the proposed regulations under the 1960 Act may be gained from the following brief summary of the Minister's powers to issue regulations. He can issue regulations specifying the standards as to structure, arrangement and operation to be applied in offices for the protection of the health, safety and welfare of persons employed therein and in particular can issue regulations for the provision of the following: suitable sanitary facilities and washing facilities including clean towels and soap; adequate accommodation for office workers' clothing; adequate drinking water supplies; good and properly installed and maintained electrical equipment and services; adequate ventilation, lighting and heating.

In view of the strong possibility of the government itself sponsoring more comprehensive legislation on this matter there is little point in going into more detail concerning an Act which is but a pointer to bigger things to come. The point for contractors to note is that now is the time for them to look around their own offices and start to make any necessary improvements on the kind of matters listed above which are almost certain to be dealt with in the government's new measures.

### OCTOBER HOUSING FIGURES

The number of permanent houses completed in Great Britain during October was 26,577 (compared with 26,303 in October, 1959) of which local authorities were responsible for 10,453 and private builders for 15,679.



# MECHANISATION OF FILTER BED CLEANING

## Use of Track-Laying Machines

THE principal work undertaken by the Metropolitan Water Board to mechanise the cleaning of slow sand and secondary filter beds formed the subject of a Paper presented last week at a meeting of the Institution of Water Engineers in London by Mr. J. LEWIN, A.M.I.C.E., A.M.I.Mech.E., senior assistant engineer, Metropolitan Water Board.

The first part of the Paper dealt with mechanisation by track-laying machines operating on the filter sand, the second with mechanisation by overhead plant.

Introducing his Paper, Mr. Lewin said at its inception in 1902, the Board acquired upwards of 100 open slow sand filters, each about one acre in area. Many of these had already been in use for some decades, quite a number of them having been built in the middle of the 19th century as a consequence of the Metropolitan Water Act of 1852, which required that all river-derived water for London be filtered.

After the Board's formation two-stage filtration was introduced to increase out-

number of machines had been in continuous service for some years to enable conclusions to be drawn.

Dealing in his Paper with mechanisation by track-laying machines, the author said:—

The Board's filter beds are of various shapes, sizes, and construction. Different features can often be found in filters on the same station, or even adjacent to one another. (The filter beds at Ashford Common are an exception, as they were constructed to accommodate overhead cleaning plant spanning the filters.) It appeared advantageous, therefore, to concentrate on the development of machines which could operate on the sand surface, as the width of the filter beds, the unreliable load-carrying capacity of the filter walls, and the narrow division between filters made it uneconomical to install machines of the overhead type.

It has been the Board's policy to introduce the "sand reservation method," whereby sand is removed, washed, and stored until successive scrapings have reduced the thickness of the sand bed to about 18in. The bed is then resanded by charging with clean sand from the store.

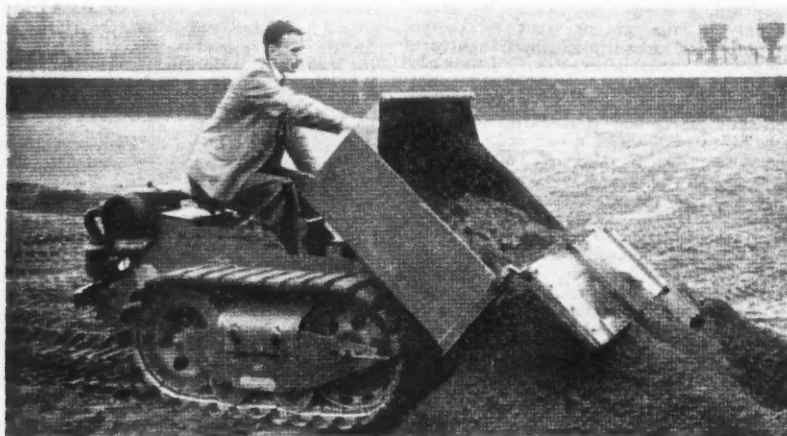


Fig. 1. Tracked dumper for transporting sand in filter beds

put, but this in itself had not proved sufficient, and in addition to the reconstruction and modernisation of many slow sand filters, new filters had been built. In fact, the demand for water since the Second World War had necessitated the construction of a new works at Ashford Common, where 32 filter beds, with an aggregate area of 24 acres, had been brought into operation. Apart from Ashford Common, the Board had 11 other stations having 131.77 acres of slow sand filters, the total number of beds being 138.

Before mechanisation, it had been the general practice to remove the top layer of dirty sand—when the filters required cleaning—by skimming the surface with hand shovels. The sand was then removed from the filters in barrows or hand-carts wheeled over wooden planks laid on the sand, or in trucks moving on narrow-gauge rail tracks. This method of cleaning filters necessitated a large labour force.

In the years immediately after the Second World War, the Board was faced with a rapidly rising wages bill for cleaning slow sand and secondary filters. At the same time there had been a reduction in output and total number of hours worked. Full employment, high industrial wages, and the unattractive job of a filter bed labourer made it difficult to recruit the necessary men to maintain the cleaning programme. In 1950, the Board embarked on the development of machines for cleaning filter beds. Mechanisation was now substantially complete, and a sufficient

At the same time, a layer of old sand is removed and thrown over on top of the clean material. The depth of the trench so cut depends, in each case, on the concentration of silt and organic debris found in lower levels of the bed.

The majority of the Board's filtration works use the "sand reservation method." This has led to the use of mobile cranes for lifting the sand out of filter beds, and the use of 2½ and 3 cu. yd. capacity wheeled dumpers for transporting it. Mobile cranes are also used for recovering clean sand from the stockpile during re-sanding operations.

Where the "sand reservation method" has not yet been introduced, sand is ejected hydraulically from a hopper in the filter bed into the washing plant. The cleaned sand is returned to the filter, where it is used for resanding at a later date.

In analysing filtration statistics, and from a time-study survey, it was apparent that the removal of sand from the filter absorbed more man-hours than skimming and raking combined. In order to effect the greatest possible initial saving, and to be able to maintain the filter bed cleaning programme with a gradually depleting labour force, the development of vehicles for moving sand in the filter beds had to precede the design of a machine for skimming and loading sand.

### Mechanisation by Tracked Dumpers

This consisted of introducing track-laying machines designed for transporting

sand in filter beds. Fig. 1 shows the machines generally in use at the Board's works. These are, basically, mass-produced agricultural tractors; each is fitted with a box to carry either dirty or clean sand across the filter bed. Each box has a movable gate, pivoted on its upper edge and retained at the lower edge by locking lugs, operated by a handle conveniently placed at the rear of the box. There is also a handle and spring-loaded locking levers, for actuating the tipping of the hopper.

These machines are powered by 600 cu. cm. single-cylinder air-cooled petrol engines, developing 7 b.h.p. Each tracked dumper can carry a load of ½ cu. yd. of sand, and weighs 30cwt. when fully loaded. The transmission is effected by a centrifugal clutch; three forward and three reverse gears are available, giving a range of speed up to 4 m.p.h. Steering is achieved by differential braking. The tracks are rubber-jointed to eliminate wear on the joints due to the abrasive action of the sand. Track castings are fitted with rubber-backed steel channel pads to spread the load.

Compaction of sand due to operating machines in the filter beds is negligible. The bearing pressure of the tracks of a loaded machine is 4½ lb. per sq. in.; less than that exerted by a man walking. These machines are also used for raking the filter surface after the dirty sand has been removed.

Tractors are driven by unskilled labour, and the ability to operate a machine can be acquired in a matter of minutes. The petrol consumption is ¼ gal. per hr.

Concurrent with the introduction of machines into the filter beds, an investigation was carried out to assess the effect of the track pressure on the sand surface.

Forty-one machines of the type illustrated in Fig. 1 are in operation at the Board's works, as well as 10 machines of a later design, which have a tapering hopper requiring no gate. The total running time logged by the machines varies between 4,000 and 8,000 hr.; the average utilisation per year is 1,200 hr. Most of the machines were put into service in December, 1954, and the estimated life of a machine is 10,000 running hr.

Mechanisation of sand transport has resulted in the saving in man-hours of 30 per cent. per acre cleaned, and 50 per cent. per cu. yd. of sand replaced.

When tracked dumpers were first introduced it was realised that, by themselves, they would not fully solve the problem. To skim sand first into heaps and then load it into the hopper of the dumper entails two operations, whereas from consideration of motion study, manual skimming and loading could be carried out in one movement, provided that the loading height is not excessive.

During the period when the first dumpers were on test, a machine designed to skim and load sand was being developed. Tracked dumpers, although imperfect as a means of handling sand when operating alone in filter beds were, in fact, only a preliminary stage, the ultimate intention being to skim, load, and transport sand mechanically.

### Sand Skimming Machines

The prototype skimmer was followed by four machines, delivered in the summer of 1955, which were used for extended trials. The performance of these machines was satisfactory, and showed a saving over manual skimming. This led to the introduction, during 1957, of a further 20 machines for use at the major filtration works of the Board (Fig. 2 shows two machines at work). Each skimmer is operated in conjunction with two tracked dumpers.

Skimming is carried out by two inde-

pendent blades, to allow for lateral variations in the sand-level. The blades are 2ft. 6in. long, giving 5ft. width of skim. They pivot from the auger assembly, and are free to rotate, within limits, relative to one another. Each blade carries a pressure plate which can be set and locked to determine the gap between it and the skimming blade.

The depth of skim, which can be varied between  $\frac{1}{2}$  in. and 1  $\frac{1}{2}$  in., depends upon the relative position between the pressure plate and the skimming blade. As the machine moves forward, sand passes up the blade; the effect of the weight of sand, and its resistance to shear, tends to rotate the blade about its hinge and therefore causes it to "dig in." At the same time, sand is built up in front of the pressure plate. When the machine moves, the resistance of the sand on the pressure plate turns it in the opposite direction from that described above. A balance is set up between these opposing forces, thus maintaining an even skim of the required depth. Fig. 3 shows the action of the pressure plate in controlling the depth of skim.

From the skimming blades, the sand is transported by the screw conveyor or auger towards the centre of the machine, where it is picked up by a flight elevator which lifts it into position and drops it on the conveyor belt. The conveyor, in turn, loads the sand into the hopper of the following dumper. When the hopper of the dumper is full, the machine leaves its position behind the skimmer and transports the sand to the filter wall, or to an ejection hopper. A second machine then takes its place.

Two skimming speeds are available, 25 and 50ft. per min., with a travelling speed of 1 m.p.h. The higher skimming speed can only be used when a thin layer of sand is to be removed, and the filter bed is reasonably dry. Reverse gear can be selected in all three speed-ranges.

Engines, centrifugal clutches, gearboxes and track components are interchangeable with those of the tracked dumpers. The petrol consumption is  $\frac{1}{2}$  gal. per hr., and the estimated life of the machines is 6,000 to 7,000 hr. The weight of a machine is 26cwt., and the nominal ground pressure 3lb. per sq. in. It takes about two days to become fully proficient in operating a skimmer, and drivers have been promoted from the grade of labourer or dumper driver.

Output of skimmers varies depending upon conditions. Thus, in a dry filter bed, taking a thin skim of approximately  $\frac{1}{2}$  in., up to 20 cu. yd. of sand an hour has been removed, but this may reduce to 8 or 10 cu. yd. for a skim 1  $\frac{1}{2}$  in. thick in a filter where the mat retains a high percentage of moisture. An average of 12 to 14 cu. yd. per hr. is attained.

The skimmer can deal with only a trace of flannel weed on the filter. It is not desirable to skim flannel weed and sand together, as the hopper or ejector-type washer does not satisfactorily separate them, and leaves a residue of weed in the stored sand. The residue decomposes and provides nutriment for bacterial action.

During the first complete year of mechanisation with skimmers (1958-59), the man-hours required to clean one acre were between 100 and 175, and 0.7 to 1.2 man-hours were required per cu. yd. of sand skimmed and weed removed. The best monthly results subsequently attained are between 50 and 70 man-hours to clean one acre.

The most economic filter cleaning gang consists of a ganger, a crane driver, eight drivers (two for wheeled dumpers, two for skimmers, and four for tracked dumpers), one labourer, and a further labourer for regulating the washers: 12 men in all. Such a gang can clean a filter of one acre (when no flannel weed is present) in a normal working day, under

average conditions. Time is saved if two skimmers start simultaneously, as they cut a path wide enough to allow two tracked dumpers to pass one another freely from the outset.

At most stations where the "sand reservation" method is carried out, tracked dumpers and skimmers are lifted in and out of the filters by a crane. At the Board's Hornsey works the filters are spaced radially round the washing bay, and the haulage distance from filters to the washers is short. Tractors use a mobile ramp, and discharge their load into the hopper of the sand washers.

#### Trenching Machines

During resanding, material from the clean sand bay is recovered by a crane

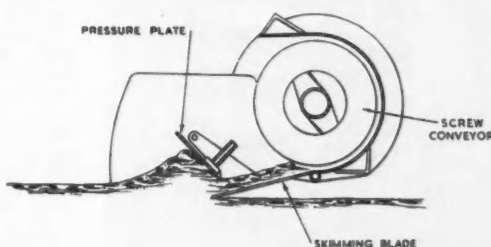


Fig. 3. Action of pressure plate in controlling the depth of skim

and grab, or by a mechanical shovel. The sand is loaded into wheeled dumpers or, in some cases, tipping lorries, which transport it to the filter which is being resanded. The sand is discharged from the dumper or lorry into a hopper in the filter, and the tracked dumpers are loaded from the hopper mouth and carry the sand, in turn, to the required positions in the filter.

It was realised at an early stage that the reduction in the labour force, consequent upon the mechanisation of skimming and transporting of sand, would leave an insufficient number of men to throw over sand, or to trench filter beds adequately when required during resanding operations. The Board has, therefore, developed a trenching machine capable of excavating a trench 2ft. 6in. wide to a maximum depth of 18in., and depositing the excavated material at the side of the machine, or loading it into tracked dumpers.

It is fitted with a bucket elevator, mounted on a pair of upper and lower swinging arms. The lower arms are braced together and connected to a lever by which the depth of trench is adjusted. The lever is provided with an indexing and locking device. The buckets are carried on two roller chains.

The excavated sand is loaded by the bucket elevator on to a conveyor belt, which can deposit either into the hopper of a tractor dumper, or through a chute on the side of the trench.

Initially, a trench 2ft. 6in. wide and of the required depth is excavated by the machine which loads the sand into tracked dumpers; this sand can be removed from the filter and washed, or temporarily stored pending replacement in the last trench. The trench is filled with clean sand tipped from the hoppers of tracked dumpers.

The next trench is dug contiguous with the first, and the excavated material is deposited by the machine on top of the clean sand placed in the first trench. This procedure is repeated with successive trenches until the whole filter is trenched and resanded. Hand-levelling is necessary before the final raking and levelling by machine.

This trencher can also be used as a bulk-loader from a stockpile. The prototype is shown in Fig. 4. The machine is fitted with dual controls, so that it can operate in either direction. The output is 30 to 40 cu. yd. per hr.

#### Effect of Mechanisation on Labour

Mechanisation has been welcomed by the employees, who have gained promotion as a consequence, and there has been no opposition from the remaining labourers or from the trade unions. Besides making a physically hard and tiresome job considerably easier and more interesting, it has opened the possibility of advancement from labourer's grade to tracked-dumper driver (44d. an hr. above labourer's rate), and skimmer driver (5d. an hr. above labourer's rate). The latter grade has been instituted to recognise the small additional degree of skill required, and the fact that skimmer drivers set the pace of the whole gang. Skimmer drivers are also classified as trencher drivers, and will be required to drive trenching machines when these are generally available.

There has been no labour redundancy, as the number of men employed has been reduced by normal wastage and temporary suspension in recruitment. At some stations the labour force was already depleted before mechanisation, and the introduction of machines enabled the filter cleaning programme to be maintained.

The number of men directly engaged in filter bed cleaning has been substantially reduced, but no reliable figures can be given, as some labour has been transferred to station upkeep. No statistical differentiation is made in the Board's records between these two groups of workers, and the number allocated to each group may vary from month to month.

The economies achieved due to mech-

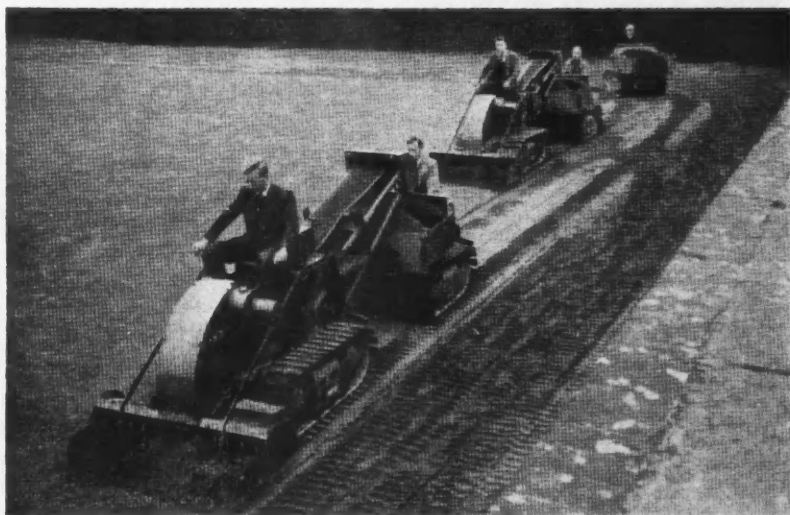


Fig. 2. Skimming machines working in conjunction with tracked dumpers



anisation are substantial. This applies where a number of labourers are almost continuously engaged on filter cleaning or resanding, as is the case at the large filter stations of the Board, and equally where cleaning is intermittent, as, for instance, at the Board's Walton and Stoke Newington works.

Where filter cleaning does not require continuous employment of labour, it is possible to achieve a better labour utilisation with fewer employees. There is also a proportional reduction in the number of men retained for holiday and sickness contingencies.

#### Servicing and Maintenance

Tracked dumpers, skimmers, and the trenching machine have interchangeable engine and transmission components, and the last two machines have further common features which assist maintenance procedure and stocking of spare parts.

Daily servicing is carried out by the driver of each machine, as well as routine changes of oil in the engine sump and air-cleaner. Filter foremen keep records showing the running hours of each machine, the petrol and oil consumption, and dates on which oil changes are carried out.

Planned maintenance is undertaken at Hampton for the Thames Valley works, and at Lee Bridge for the Lee Valley works. Each maintenance depot holds two spare tracked dumpers and two skimmers, as well as a number of engines. These are issued to replace machines withdrawn for servicing or repair. Each workshop employs two fitters and their mates, who are permanently engaged on maintaining filter-cleaning plant. In addition a handyman is attached to the Hampton works servicing depot; he drives the workshop van (which also transports the plant), and he carries out minor repairs at stations.

Servicing is carried out on tracked dumpers and skimmers every 500 to 600 hr., when the engine is decarbonised, valves are ground in, and magneto and carburettor adjustments are made. Gearbox oil changes are made during every alternate servicing. After machines have been running for 2,000 to 2,400 hr., the



Fig. 4. Trenching machine for resanding operations

piston rings, load rollers, and their oil seals, collars, and bushes are replaced. The clutch and brakes also require relining after this period. After 5,000 hr. the engine is completely overhauled, and the track and driving sprockets are replaced.

A certain amount of gearbox mainten-

ance and repairs to the hoppers of the dumpers also becomes necessary. Skimmers do not normally need their tracks to be replaced, nor do load rollers and their associated parts wear so rapidly. On the other hand, a new flight chain and sprockets have to be fitted after 1,000 to 1,200 running hours.

Considering the severe duty and working conditions, costs of maintenance and repair are not heavy.

#### NEW NINE-STORY BUILDING MAY BE DEMOLISHED

A number of substantial properties, including Torquay House, a nine-storey building in Harrow Road now nearing completion, will be affected by the new road line which has been adopted for the improvement of Western Avenue, from Westway to Harrow Road, London.

The new line has been adopted after protracted negotiation between the L.C.C. and the British Transport Commission, and following consultations with the Ministry of Transport. It has been kept as near as possible to the northern side of the Western Region main line railway which it crosses at Westbourne Park Station.

The improvement is not likely to be carried out for seven years, but the owners of Torquay House consider that it would be impossible to manage the building on this basis and are urging that the L.C.C. should purchase now. The Town Planning Committee of the L.C.C. recommend acquisition at a cost of £480,000, including incidental expenses. Terms had been agreed by the owners for leasing part of the premises to the Ministry of Health for 21 years and the question whether they can take a shorter lease will have to be considered. In any case, the remainder of the building will be used either for the Council's own services or for letting.

The Committee state that any alternative alignment of the route to avoid Torquay House would involve even more serious property and engineering considerations, and it is therefore virtually certain that the site will be required for the road improvement.

(Concluded from page 1314)

porous pipes with gravel backfill to trenches and (ii) open ditches.

Over 90 per cent. of cut is in the Old Red Sandstone series, a formation that offers problems due to its texture, the bands of marl, in some places of considerable thickness, and the steep dip of the strata.

To blend in with the prevailing colour of the surrounding scenery, abutments to bridges and other structures are being faced with Red Sandstone masonry.

#### Contract No. 2

This contract (contractors, R. M. Douglas, Ltd.) covers just over six miles of motorway, running from the A.417 junction at Bury Court to the Herefordshire boundary. The roadworks involved construction of 25 culverts and a pedestrian underpass. The carriageway foundation is of limestone gravel on waterbound stone, with a hot rolled asphalt running surface.

Some major difficulties were encountered on this sector, particularly near Bury Court, where earthmoving machines sank over their axles into a previously unknown silted fishpond. In the Glynn Brook valley, even the culverts required 6ft. of solid filling below before they could be constructed at drainage level. At another point, there are sandstone cuttings where, although the rock was soft, it was extremely abrasive; and sparks and smoke from scraper blades gave some indication of the wear which occasioned their con-

stant renewal and replacement. In the marl regions—two-thirds of the contract length—winter working proved impossible, since the marl, though resistant to water in situ, when worked broke down into a silt which flowed in wet conditions.

In the Beaconsbill-Dymock Wood section, the motorway runs through the countryside in deep cuts and on embankments over culverted ravines, and then enters the Dymock State Forest, where 25,000 trees had to be removed by the Forestry Commission to make way for its progress.

#### Contract No. 3

Contract No. 3 (contractors, R. M. Douglas, Ltd.) runs from the Gloucester-Longdon road to the flyover junction with the Ledbury-Gloucester road (A.417) near Bury Court, just across the Gloucestershire boundary. Here the soil is mainly Keuper marl or silty clay, and the carriageway foundations are of soil-cement with a layer of cement-stabilised gravel and a hot asphalt running surface.

#### Contract No. 4

This contract, mainly in Worcestershire, comprises the road and bridgeworks between the temporary connection with A.38 at Bickeridge Common (Gloucestershire) and the Gloucester-Longdon Road (B.4211). Included are the very extensive bridgeworks and viaducts over the River Severn at Queenhill, the viaducts at Bushley and Ripple, and the Ripple road and railway crossing,

Eight inches of crushed stone are used for road construction in this sector, with a gravel sub-base extending under the full width of the hard shoulders. The running surface is of hot rolled asphalt. Contractors are A. E. Farr, Ltd.

#### Authorities, Consultants and Contractors

##### Contract No. 1

Agent authority—Herefordshire C.C. (county surveyor, Mr. D. H. Banks, M.B.E., T.D., B.Sc., M.I.C.E.). Consulting engineers for Bridstow Bridge—Scott and Wilson, Kirkpatrick and Partners. Consulting architects—Ansell and Bailey. Contractors—Tarmac Civil Engineering, Ltd.

##### Contract No. 2

Agent authority—Gloucestershire C.C. (county surveyor, Mr. R. A. Downs, B.Sc., A.M.I.C.E.). Consulting engineers for bridgeworks—W. S. Atkins and Partners. Contractors—R. M. Douglas, Ltd.

##### Contracts Nos. 3 and 4

Agent authority—Worcestershire C.C. (county surveyor, Mr. W. R. Thompson, M.I.C.E.). Consulting engineers for Queenhill Bridge—Sir Alexander Gibb and Partners. Consulting architect—Sir William Holford. Contractors—R. M. Douglas (contract No. 3) and A. E. Farr Ltd. (contract No. 4).

Previous articles on the Ross Motorway and Ross By-pass appeared in *The Contract Journal* on July 21, 1960, and September 8, 1960.



## MAJOR HOUSING SCHEME BY DIRECT LABOUR

### Site Liable to Flooding Developed at Salford

A HOUSING scheme comprising the erection of some 700 dwellings on a site once thought unsuitable for building by reason of its liability to flooding when the River Irwell overflows has recently been completed by direct labour by Salford City Council.

The site is an area of approximately 19 acres bounded on the north-east by Old Manchester Golf Course, on the south-east by the River Irwell and Manchester Race Course, on the south-west by an existing housing estate and on the north-west by high ground known as Castle Hill. The site falls from the latter to the river.

#### Site Problems

The site investigation revealed that piling would be necessary to depths ranging from 15ft. to 45ft. A further site problem was the liability to flooding. The area has been flooded twice within living memory, the worst case being flooding to a depth of 7ft. on the lowest part of the site near the river. Arising from these factors, all flat accommodation is raised above this flood level by placing the blocks on columns. The only blocks not so raised are the two nearest to Castle Hill, which is the highest part of the site and a three-storey maisonnette block which has the habitable accommodation on the first and second floors above ground floor shops.

Under the raised blocks, the ground floor space is used for communal laundries, service rooms and entrance halls. These areas were constructed in waterproofed concrete and planned with watertight doors to protect them in case of flooding. Lock-up garages were also provided under seven of these raised blocks. They were not permitted by the local fire officer on the three twin-tower blocks.

The total accommodation provided by the scheme is 153 one-bedroom flats, 372 two-bedroom flats and 180 three-bedroom flats. This is planned within three basic block types. The largest blocks are the three long balcony access blocks containing largely two-bedroom and some one-bedroom units. The second type are the three twin tower blocks of 40 two-bedroom and 40 one-bedroom flats per block. The third type are the point blocks which each house 30 flats having three bedrooms.

#### R.C. Frames

The structural concrete frame for each type of block was carried out by a different reinforced concrete specialist sub-contractor and it is interesting to

note that, when economy was the main consideration in each scheme, each contractor chose a different approach to the construction. The balcony access blocks carried out by Truscon, Ltd., have in-situ columns, beams and solid concrete floors. The twin tower blocks, by Matthews and Mumby, Ltd., have in-situ columns but precast beams, 3ft. 4in. wide floor units, precast lift shafts, stair towers and staircases. For the point blocks, the Fram Reinforced Concrete Co., Ltd., used in-situ

open fireplace in each living room was a specific requirement of the local authority and each fireplace was fitted with an approved smokeless fuel type "all-night" burner.

The landscaping to the site, which has recently been completed, includes a children's playground and a promenade along the banks of the river. The layout will be completed early in the coming year when a small health centre will be built near the Cheadle Avenue entrance to the site.



View of some of the blocks

columns and hollow tile floors with precast beams.

The cold water services took the usual multi-storey form of a main in each block rising to large roof storage tanks with a pumped booster supply taken from a booster tank positioned either at ground floor or on the fifth floor. This floor was the highest level to which the water authority could guarantee a supply during periods of peak demand. The domestic hot water is provided from a copper combination tank heated from a back boiler in the living room. Each tank is additionally fitted with an electric immersion heater. The installation of the

The flats were designed by the Manchester architects, Cruickshank and Seward, the City Engineer and Surveyor, Mr. G. Alexander McWilliam, B.Sc., A.M.I.C.E., A.R.I.C.S., M.I.Mun.E., being responsible for the design of roads, sewers and general landscaping of the area. The contract for the construction of the roads, siteworks and flats was obtained by the Corporation's Direct Labour Building Department by competitive tender following public advertisement, the General Manager of the department being Mr. S. W. Johnson, M.B.S.I., M.I.Mun.B.M.

The estimated cost of the scheme including landscaping is £1,650,000.



Salford's Lower Kersal housing scheme

**In Parliament****BUILDING INDUSTRY "ABSOLUTELY FLAT OUT," SAYS MINISTER**

**T**HAT the building industry was working "flat out" was stated by the Parliamentary Secretary to the Ministry of Housing and Local Government, Sir Keith Joseph, in the Commons last week.

Speaking during an adjournment debate on housing amenities, he said that the industry was building not only houses, but schools, hospitals and factories. It was modernising railways and was doing a great deal of essential works. In fact, local authorities were already finding it very difficult to get their own housing programmes carried out to time because there was so much work in the building industry.

Still, he hoped that the trend would continue upward and that higher productivity from the industry would enable it, however busy it might be, to pick up an increasing number of improvement grants. The industry's record seemed to show clearly that whatever needs there might be, there was absolutely no case for compulsion.

**Industrial Workers (Accidents)**

Mr. Prentice asked the Minister of Labour whether the rise in the number of accidents at work during 1959, both for industrial workers in general and for young persons in particular, had been continued this year.

Replied the Parliamentary Secretary, Mr. P. Thomas: The provisional figures for the first three quarters of 1960 show a total of 140,049 accidents reported under the Factories Acts compared with 126,188 for the same period in 1959. The highest figure was in the first quarter and the numbers have fallen in each succeeding quarter. Separate figures for young persons are not yet available.

Mr. Prentice: Would the Parliamentary Secretary agree that these figures are very

disturbing indeed, because 1959 showed an increase over 1958 and now we are told that for the first three quarters of 1960 there is an increase over 1959? What steps are being taken by the Government? Will they have a fresh look at the question of the Factory Inspectorate and see whether this does not give added point to the argument that we have often put from this side of the House that this department should be increased?

Mr. Thomas: I certainly agree that when there is an increase in accident figures it is disturbing. As for Government action, as the hon. Member knows, my right hon. Friend has recently published a new draft code of safety regulations for the construction industries which account for a high proportion of accidents. Further, Her Majesty's Factory Inspectors will continue to enforce the law. General safety requires the sustained efforts, not only of the Government, but of employers, employees and all voluntary organisations concerned with accident prevention. The strength of the Inspectorate has been substantially increased in recent years and we will keep the matter under review.

**Clearways (Intersections)**

In a written answer, the Minister of Transport, Mr. Ernest Marples, informed Mr. Wingfield Digby that in general clearways had comparatively few intersections. It would be inconvenient to motorists to close these intersections and costly to replace them with grade-separated junctions. He preferred at present to spend the funds available for improvement on roads where less satisfactory conditions existed.

**Traffic Signs**

The Minister later told Mr. Wingfield Digby that he was considering whether a general review of our traffic signs was needed. The question of whether, and

how far, we should adopt the continental system would certainly be considered as part of any such review.

**Road Widening, Finchley Road**

When Sir W. Wakefield asked when it was proposed to start the Finchley Road widening scheme, Mr. Marples replied that his Department were at present discussing details with the London County Council, who were seeking Parliamentary powers. He could not say when the scheme would be ready, or when he could accept it for grant purposes. Construction would take about 18 months and the estimated cost of the work now proposed was £3,750,000.

**New Bridge**

Replying to Mr. B. Harrison, the Minister stated that Essex County Council hoped to advertise next month the contract for the Fullbridge (Maldon) new bridge, and to start work in March.

**Birmingham—Preston Motorway**

As a result of altering in places the proposed vertical alignment of the 26-mile length of the Birmingham—Preston Motorway between Preston and Warrington, Mr. Marples informed Lieut.-Col. Bromley-Davenport that five gradients and eight vertical curves had been amended, the total length of which amounted to 6.45 miles. In all cases the revised gradient was well within the acceptable gradient for motorways. The following table gave the detailed information for the lengths affected:

**Changes in Gradients**

Length in ft.	Gradient	
	Before revision	After revision
7,000 ...	1 in 500	1 in 476
5,800 ...	1 in 156	1 in 157
1,800 ...	1 in 100	1 in 166
1,600 ...	1 in 62	1 in 54
1,000 ...	1 in 125	1 in 200

**Changes in Vertical Curves**

Length in ft.	Rate of change in curvature	
	Before revision	After revision
	per cent.	per cent.
1,300 ...	0.130	0.120
1,700 ...	0.040	0.030
2,300 ...	0.215	0.210
2,500 ...	0.060	0.091
1,600 ...	0.271	0.311
3,100 ...	0.057	0.047
2,400 ...	0.029	0.020
2,000 ...	0.040	0.100

**St. Austell Hospital**

Questioned by Mr. G. Wilson, the Minister of Health, Mr. Enoch Powell, said that the plans originally submitted for a maternity unit at the proposed hospital, St. Austell, had been substantially amended. A revised estimate of cost had been received and the possibility of further economies was being urgently explored. He was anxious that building should start as soon as possible.

**New Hospital, Truro**

The Minister also informed Mr. Wilson that the South Western Regional Hospital Board expected that the working drawings for the first phase of the new Truro hospital would be completed by the end of this month and the bills of quantities by next May.

**Cummins Engine Extension**

Replying to Miss Herbison, the Parliamentary Secretary to the Board of Trade, Mr. Niall Macpherson, said that they were awaiting confirmation from Cummins Diesel Engine Company of its acceptance of the detailed plans for an extension. Until this was received he could not say when work would commence.

**Coatbridge Hospital**

The Western Regional Hospital Board were planning to build a new general hospital in the area of Airdrie and Coatbridge, but this project had not yet reached a stage at which firm decisions could be taken about its size or its site, stated the Secretary of State for Scotland. He was replying to Mr. Dempsey.

**EARLY START ON CARLISLE CIVIC CENTRE CONTRACT**

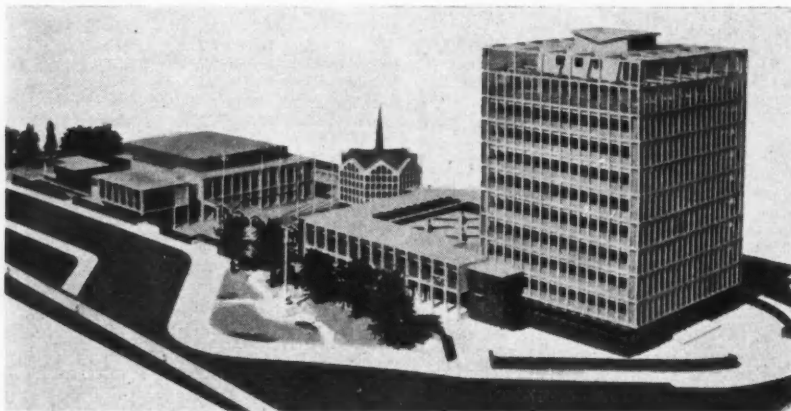
**JOHN LAING AND SON, LTD.**, are to start work shortly on the first phase of the new Civic Centre in Rickergate, Carlisle.

Included in the £670,000 project, which is due for completion in two years, are an 11-storey administrative block, a linked two-storey civic suite and an octagonal council chamber.

The buildings will be of reinforced con-

crete frame construction, clad in mosaic with precast exposed aggregate panels. The second phase of the scheme, an assembly hall, is in the planning stage.

Architects for the project are Charles B. Pearson and Son of Manchester and Lancaster. The consulting engineers are Bolton, Hennessey and Partners (structural) and Donald Smith, Seymour and Rooley (mechanical and electrical); quantity surveyors are Lay and Partners.



A model of the proposed civic centre

## LONDON TRANSPORT'S NEW CENTRAL LABORATORY BUILDING

THE scientific staff of London Transport, who carry out a wide range of research work in many fields, are now housed in a new central laboratory which has been built at the Executive's Chiswick Works Estate.

Having a total floor area of about 27,000 sq. ft., the building is two storeys high and is steel-framed, standing on mass concrete foundations. Both floors have a central spine corridor with offices mainly on one side and laboratories or workshops on the other. The steel framework is on a 10ft. grid, and provides a 14ft. span in the rooms with a 6ft. corridor.

External walls are of facing brick panels in a framework of precast artificial stone mullions, placed at 2ft. 6in. centres and forming a uniform grid dominating all elevations. These panels are of rustic buff wire cut facings laid "brick on end." The brickwork above and below this grid is in mixed purple facings.

The main entrance is on the south-west corner of the building. The entrance hall consists of a grid construction carried out in precast artificial stone units in a similar construction to the rest of the building, and all external elevations are glazed in clear glass, except for one band of blue vitrolite at first floor level which masks the horizontal heating pipes.

The strongly marked grid is further developed in the flooring of the hall which is paved in York stone slabs and from which rises a free standing staircase. This staircase is formed from a cranked R.S.J. encased in concrete. The teak treads are carried on a central concrete core with no risers.

In the main building the general floor to ceiling height is 12ft., while the main ground floor corridor is 9ft. 2in. high. Above the ceiling of this corridor are housed the main service ducts, from which the branch services are carried to various rooms in the 12in. space between the removable ceiling panels and the Truscon precast first floor.

The use of ceiling heating permits the most efficient use of laboratory floor space. Air extracted from fume cupboards, etc., is replaced by means of a plenum system which introduces air at a pre-adjusted temperature, and certain rooms are provided with air extraction systems where these are desirable for the maintenance of good atmospheric conditions. All fan chambers are situated on the roof, which

is flat, covered with  $\frac{3}{4}$ in. of asphalt and an Isocrete lightweight screed.

Interior walls on the ground floor are of 4 $\frac{1}{2}$ in. brickwork and those on the first floor are of Thermalite. All columns are encased in concrete, the rainwater pipes being carried down the internal columns. A 4:2:1 mix was used for all the concrete.

ing approximately 14 tons, with an 8ft. cube isolated concrete base mounted on a rubber pad, is included in one of the engineering workshops.

The automatically controlled heating system is by low pressure hot water ceiling panels, with the exception of the workshops, which have radiators, and the en-



Entrance hall, with free-standing staircase

In laboratories, offices and workshops generally the floors are covered with p.v.c. tiles, but rooms devoted to engineering activities have woodblock floors and other areas have quarry tile, granolithic, in situ, p.v.c. or linoleum floorings according to particular requirements.

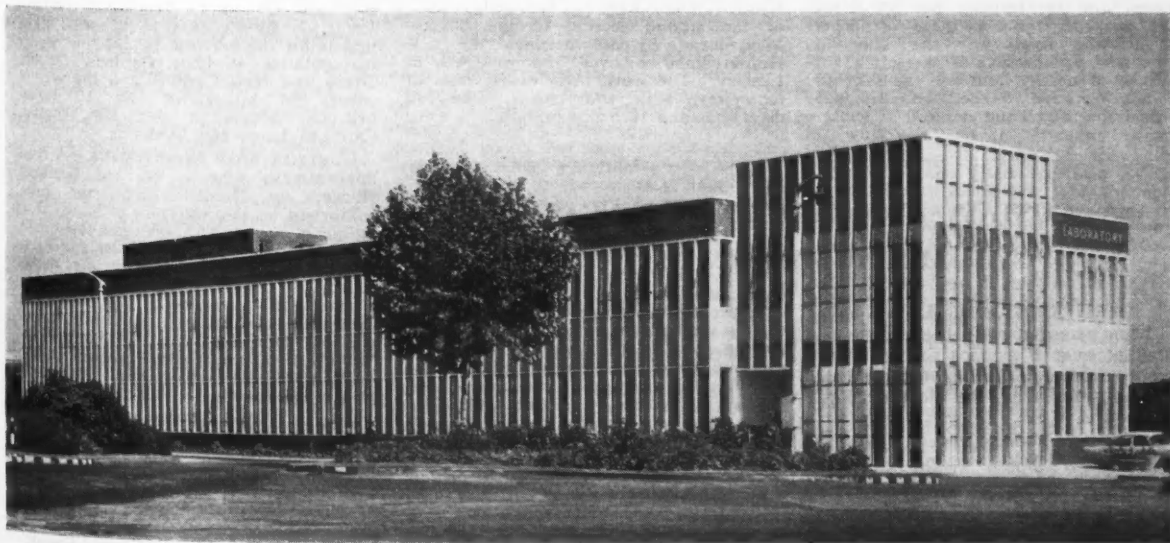
Special facilities in the building include a conditioning room, a cold room, a paint spray booth with a stoving oven and a radiography room with special 4in. barium block lining and 8in. cavity wall to allow the exposure of a "Cobalt 60" source.

An axle fatigue testing machine weigh-

trance hall which has under-floor heating. A goods lift is situated at the opposite end of the building to the entrance hall, and a secondary staircase of precast concrete surrounds the lift shaft.

The laboratory was designed to the requirements of Mr. A. T. Wilford, director research, London Transport, by Adie, Button and Partners, architects, in association with Mr. T. R. Bilbow, former architect, London Transport, and Mr. K. J. H. Seymour, the present architect.

Holland & Hannen and Cubitts (Great Britain), Ltd., were the main contractors.



The new laboratory



## USE AND CONTROL OF WATER

### Great Problems Emerging, Minister Tells Engineers

**S**PEAKING at the annual dinner of the Institution of Water Engineers held at the Park Lane Hotel, London, last week, Mr. Henry Brooke, Minister of Housing and Local Government, said the time was fast approaching for a bold new approach to making the best use of our water resources.

He said he had read the suggestions for a national water grid and had studied proposals for an elaborate and extensive new canal system to be used partly for water supply and partly for transport. The sponsors of these projects showed a commendable interest in the practical question which seldom received enough attention—how to secure the best use of the water resources in this island. The trouble about both these proposals was that they tackled only one part of the problem and they neglected the economics of water supply.

#### Cost of Distribution

In water supply the major element was the cost of distribution. With electricity the major cost was not distribution but production. People who talked about a water grid being as obvious device as an electricity or gas grid failed to mention that water, unlike electricity or gas, would not run uphill, at any rate not without quite disproportionate pumping effort which was expensive. One could only develop water sources where nature had placed the water.

"To make sure of keeping water cheap, therefore, the first thing is fully to develop the local sources of water near to the point where the water is required," said the Minister. "Engineers have lately carried out two hydrological surveys for the Great Ouse and the Severn which show how this can be done for these two rivers. Six other similar surveys are in hand.

"If we make sure that the local sources of water are fully developed, proposals for a national water grid—whether it consists of aqueducts or canals—are not necessary. Neither are they the right solution, for the simple reason that they would call for needless expense and would push the cost of water up higher than it should be. The weakness of these suggestions is also that they tend to concentrate on the distribution of water.

"I am convinced that what is needed is to look at the conservation and use of water as a whole. Water is required not only for public water undertakings and for industry and for farming but for many other purposes too. We need a proper flow in the rivers for the sake of purification, for the sake of navigation, for the sake of beauty, and for the sake of the fish. We have to keep land drainage in mind too, and flood control."

The Institution of Water Engineers had said that all these matters ought to be handled by one authority in each catchment area, to make certain that water resources were developed in a balanced way for the benefit of everybody. This approach was on the right lines, Mr. Brooke said. He believed this was the direction in which we ought to be seeking the way forward.

#### Engineers' Help Required

The Minister had no doubt that by proper use of the resources of each river basin, more water could be made available than at present for the good of everyone. These were questions for the Government. But no Government could solve them without the help of water engineers. The Institution of Water Engineers had a great opportunity if they would contribute their highest wisdom to the tackling of these great problems now emerging of the use and control of water.

#### Close Co-operation

Responding, Mr. A. G. McLellan, B.Sc., M.I.C.E., president of the Institution, assured the Minister of the ability of the members of the Institution to assist in tackling the problems that he, the Minister, had mentioned. He pointed out that the members were not only technicians but also managers of men and could discuss matters outside the immediate context of design and construction of works.

The President also spoke of the good relations which existed between the Institution and the Ministry and said co-operation between the two was now closer than ever before.

The toast of "The Guests" was proposed by Mr. M. T. B. Whitson, B.Sc., M.I.C.E., vice-president of the Institution, the response being made by Sir Hubert Ashton, K.B.E., M.C., M.P.

### TENDERS CALLED FOR MORE MOTORWAY CONTRACTS

As officially announced on page 1296, Cheshire County Council are inviting tenders for the construction of approximately 15 miles of the Birmingham—Preston Motorway from Holmes Chapel Interchange (A.54) to Lancashire boundary. The contract includes the diversion of side roads and the erection of 36 bridges and three two-level interchanges.

On page 1298, Buckinghamshire County Council invite bids for the construction of the second section of the Slough-Maidenhead By-pass between the new Huntercombe Flyover and the A.4 at Langley. The work involves 5½ miles of motorway, with spur roads, side-road diversions and 10 major bridges.

### COSTAIN AWARDED £7M. OPENCAST MINING CONTRACT

**R**ICHARD COSTAIN, LTD., have been awarded a further contract, valued at over £7m., for the recovery of approximately 6 million tons of raw bituminous coal from the Westfield Site in Fifehire.

The contract (which covers only the first stage of development of the mine which is estimated to contain 20-25 million tons of coal) includes the blending, washing and grading of the coal at the mine and delivery of the finished product into railway wagons at the rate of 12,500 tons per week and will take six years to complete.

Some 26 million cu. yd. of overburden will be removed under this contract, employing some of the latest techniques in rock excavation and removal. Conveyors will be used to transport the overburden to an area of low lying land which lies about 1½ miles from the mine and which will be reclaimed, levelled and graded to produce good quality agricultural land.

Two years ago, Costain, in association with Blankevoort and Zoon N.V., of Holland, removed by dredger peat and sand which covered part of the site to a depth of about 35 feet. About 4½ million cu. yd. of material was involved.

### Late Construction News

**FRASERBURGH HARBOUR WORK.**—The £167,659 tender of William Tawse, Ltd., Angusfield, Aberdeen, has been accepted by Fraserburgh Harbour Commissioners for reconstruction of the pier and entrance channel to quieten the wave motion in Faithlie Basin. The consulting engineers for the scheme are Leitch and Sharpe, 65 Bath Street, Glasgow, C.2.

**ALTERATIONS TO FORMER EMBASSY.**—A £100,000 contract to alter the former American Embassy building at 1-3 Grosvenor Square, London, W.1, into office accommodation for the Canadian Government has been awarded to Griggs and Son, Ltd., 56 Victoria Street, London, S.W.1. The work is scheduled for completion in May, 1961. Sir Edwin Cooper, R.A., and Partners, 4 Verulam Buildings, London, W.C.1, are the architects.

**CHESSINGTON RESERVOIR.**—The Metropolitan Water Board have placed a £118,000 contract with Howard Farrow, Ltd., Highfield Road, Golders Green Road, London, N.W.11, for the construction of a 4½ million gallons capacity covered concrete service reservoir at Chessington. The main walls are to be constructed in mass concrete and the floor, roof and columns in reinforced concrete. Plans are by the Board's chief engineer, W. M. Lloyd Roberts.

**£500,000 BURNLEY FACTORY.**—The main contract for erection of a £500,000 factory at Eastern Avenue, Burnley, for Joseph Lucas, Ltd., is now out to tender. Preliminary site works are now being carried out by Mullen and Durkin, Ltd., Trafalgar Street, Burnley. Clifford Tee and Gale, 43 Frederick Road, Birmingham, 15, are the architects, Reynolds and Young, 329 High Holborn, London, W.C.1, the quantity surveyors, and Thomas Bedford and Partners, 41 New Bond Street, London, W.1, are acting as structural consultants.

**NEWCASTLE HOUSING.**—Subject to Ministry approval, Newcastle upon Tyne City Council are to accept the tender of John Twinn, Ltd., Allerdale House, Brigham, Cockerham, at £360,206, for building 181 two-bedroom houses, 16 one- and three-bedroom flats in two-storey construction, and 54 garages at Newbigin Hall Estate.

**HULL COLLEGE EXTENSION.**—Extensions to the Kingston upon Hull Training College, Cottingham Road, Hull, estimated to cost about £400,000, are to be carried out by F. Bilton, Ltd., 83 Wincolmlee, Hull, for the City Council. Plans are by the city architect, Andrew Rankine, O.B.E.

**LEEDS DWELLINGS.**—Two large contracts, worth respectively £466,065 and £146,577, have been placed with N. B. Bell and Co., Ltd., Frankland Terrace, Leeds, 7, by Leeds City Council. The first is for the erection of 228 four-storey maisonnettes at Ebor Gardens, Lincoln Green and New Carlton, and the second covers 86 bungalows and 10 three-bedroom houses at Bell Isle, Gipton, Cardigan Lane, and Moorside.

**DUMFRIES ROAD IMPROVEMENT.**—A road improvement scheme, east of Beattock village, in Dumfriesshire, has been authorised by the Secretary of State. The estimated cost is £622,000 and the works will be carried out by J. Miller and Partners, Ltd., Edinburgh, under the supervision of Dumfries C.C. The scheme provides for a diversion of about 2.6 miles with grade separation at the two junctions of the Dumfries-Beattock-Moffat Road (A.701) with the Carlisle-Glasgow trunk road (A.74), and includes the construction of five new bridges.

**£3m. BALDERHEAD RESERVOIR.**—Tenders are due in January from selected contractors for construction of the Balderhead reservoir river abstraction scheme, for the Tees Valley and Cleveland Water Board. The scheme is estimated to cost about £3m. Edward Sandeman, Kennard and Partners, 171 Victoria Street, London, S.W.1, are the consulting engineers.

# DESIGN AND CONSTRUCTION OF MOTORWAYS

## Lessons Learned from the Consultant's Angle

By R. F. Earley, B.Sc.(Eng.), M.I.C.E.\*

**C**ONSULTING engineers have for many years been making a substantial contribution to highways overseas, especially in under-developed countries. At home, however, their main contribution in this field until recent years was in the sphere of larger bridge and viaduct structures, designed to overcome some particularly difficult obstruction. These often were located on county boundaries or were situated in small urban areas where the highway authority was not equipped to deal with the problem of such large-scale construction.

Today, consultants are making a not insignificant contribution to the national highway programme, especially in the field of motorways. In some cases they are being entrusted with investigations for, and the design and supervision of, complete lengths of motorway; in other cases they are working in association with county surveyors, usually for the design of some or all of the structures on a particular length of motorway. Once the county surveyor has accepted the position of having a consultant appointed by the Ministry to do work in his area, it is to the advantage of both the county surveyor and consultant to work together in an atmosphere of mutual respect, and this fortunately has usually been the case.

Mr. Bowdler, in his excellent Paper which he gave to this Institution in October dealing with motorways from the county surveyor's angle, gave a clear picture of the preliminaries and the procedure for getting the work started. This basic work, together with the accompanying problems, is common to both consultant and county surveyor but the consultant may get a slightly better deal, as it is very unlikely that he would be appointed until the scheme is reasonably sure of proceeding. The county surveyor on the other hand has probably lived with the idea of the project for many years and from one cause or another—not necessarily of an engineering nature—a large number of lines and ideas have been worked out without a great deal of progress being made. Indeed, the consultant's first job is usually that of sifting a mass of historical data on the project and determining what, in his opinion, is the best line for the road from an engineering and planning angle.

However, as soon as he is in a position to submit a draft scheme to the Minister he is then subject to the same delays as the county surveyor. He may, though, be in a better position to deal with many of the day-to-day delays that are likely to occur at any stage of the job, as normally he is in very close contact with the staff of the Ministry and any procedural decisions, can be settled reasonably quickly. Individually these items appear insignificant. They may include the proper presentation of order plans or information for land reference schedules, the knowledge of which authority must be consulted and a host of other miscellaneous items of information.

### Approach to the Problems

For a consultant, the problems associated with the design and construction of a motorway are largely those same problems which beset a county surveyor. Mr. Bowdler has dealt with some of these problems in his Paper. As he has pointed out, many of the standards for motorway

design are laid down in memoranda issued by the Ministry of Transport and have to be closely adhered to. The consultant, the county surveyor and the Ministry of Transport are therefore all learning in the same school and I make no apology for repeating the more important lessons in this Paper.

The consultant's approach to a highway scheme is, of course, different from that of a county surveyor. After all, the county surveyor's first loyalty should be to his council who often have special interests in the area through which the motor road is being planned. The consultant, on the other hand, is in business as an engineer and naturally has a greater incentive to efficient working, particularly the avoidance of abortive work. He can and does make every effort to streamline office work and usually travels extensively to keep himself abreast with the latest methods of design and construction, both at home and abroad.

Electronic computers and other devices are now available to reduce the time-consuming drudgery of many drawing office operations. Many of these machines are, however, expensive and require specially trained staff to operate them successfully. Without a continuity of roadwork (or future planning as Mr. Bowdler prefers to call it) it may not be economic for highway authorities to utilise such advance methods to any great extent. The experience of highway and structural engineers in this country will probably confirm my own opinion that, although the use of computers can speed up operations to a marked extent, the saving in cost, as compared with more conventional methods, has in the past often been disappointing.

### Preparatory Work

One of the first lessons learned is that under present legislation the preparation of schemes cannot easily be accelerated. This does not mean, however, that we should be satisfied with the present system. Some speeding up of the existing administrative procedure might be possible and surely it would not be impossible for our legal and parliamentary friends to modify the present legislation to enable the various procedures under the Special Roads Act to be accelerated without sacrificing any of the rights of the individual citizen.

Highway engineers have had to adapt their office organisations to suit the changing demands made on them. Instead of the improvement scheme, probably involving a few bridges constructed at a leisurely pace, they now have to tackle large-scale schemes stretching over several counties with the requirement that they be completed in a very short period of time.

As engineers have benefited by the interchange of ideas with foreign colleagues in their profession, so it may be that our administrators could also learn something from their opposite numbers overseas.

One improvement would surely be to allow more adequate limits of deviation in the publication of the line of a new motor road at the scheme stage. At present, the road at this very early stage has to be fixed to within the accuracy of a one-sixteenth of an inch thick black line on a 6in. to one mile map. Parliamentary plans usually allow much more flexibility. It is obviously highly desirable from the legal and public relations points of view that the Order should be as definite as possible, and that it should be confirmed as soon as possible, but there should be provision whereby subsequent alterations

to the line can be made. At present once the Order has been confirmed it is difficult to incorporate even those minor improvements which only later become apparent as a result of more detailed design or from experience. It may be that it would be better if a separate and later Order were made for the slip roads in the same way that there is a separate Side Road Order. More thought could then at least be given to the location and design of interchanges.

Having criticised the time it takes to prepare a scheme, any suggestion of lengthening it, is of course, unthinkable. Nevertheless it is found that the time allowed for the preparation of Side Road Order Plans can be too short. They often have to be hurriedly prepared only to be subject to a long wait before publication. Neither the Side Road Order Plans nor the Land Reference Plans can be properly prepared until the design of the motorway is well advanced and such details are known as the construction depths of bridges, the batters on cuttings and embankments and the profile of the road, which includes the balance of cut and fill. It may be better to give more thought to the timing of the publication of the Side Road Orders. More time should be allowed for preparation and an attempt made to reduce the time required for administrative purposes after submission of the plans to the Ministry of Transport. Much confusion and unnecessary work would be avoided if the preparation of the Land Reference Plans could be deferred until reasonably final design details are available and land requirements are more precisely known. It is not generally realised how frequently changes in ownership or tenancy occur, particularly after an Order has been made. Reference plans prepared too soon very quickly become completely out of date.

### Public Relations

This brings me to the very important subject of relations with the public at large and, in particular, with the owners and occupiers of land and property likely to be affected by the road. It is no longer possible, if it ever was, to treat the average property holder as a suspected Objector, to be kept in the dark about schemes being prepared in the national interest. In the past it was not uncommon for field surveyors investigating the line for a new road, on being challenged, to resort to the not very convincing and quite untruthful reply that they were "bringing the Ordnance Survey up to date".

Once it is known that plans are afoot for any new project, rumour usually builds up a fabrication of speculative knowledge often bearing little or no resemblance to the facts. John Citizen is not an unreasonable being however, and he usually responds in a responsible manner if a genuine and imaginative effort is made to co-operate his assistance. American practice, at least in Los Angeles, seems to be that a well-written booklet is produced entitled "Why we need your land and assistance". This is circulated in the area of a major road scheme and appears to produce good results. I have found it has been beneficial to hold periodic informal meetings in the area of the proposed road to keep the local inhabitants informed. It is usually easier for a consultant to conduct such meetings than for a county or Ministry official, probably because the latter can often be associated with some past grievance, real or imaginary, whereas locally the former will usually be relatively unknown. Those in charge of land referencing should be fully conversant with both the engineering

\*Extract from a Paper presented last week at a meeting of the Institution of Highway Engineers in London.



and the political background of a scheme and should also be experienced in the art of public relations. The consultant must be independent and disinterested in his outlook and, equally important, this impartiality must be apparent in his dealings with the public. When any major scheme encroaches on the comparative isolation of the countryside, many individuals are affected and much ill feeling will be engendered if it is thought that one landowner is affected to the advantage of another, particularly if the one who is not affected has the appearance of power or influence.

#### Land for Temporary Works

Regarding land required temporarily during the period of construction, this is, at the moment, entirely a matter for the contractor to arrange. This practice, however, should in my opinion be reviewed. The one person who really suffers is the landowner from whom the land may already have been taken permanently for the road itself. After considerable negotiations with the district valuer he is often confronted with a request from a contractor to acquire more land temporarily. No wonder there are delays and difficulties; contractors are forced to pay high prices for the temporary use of land and these costs are, of course, reflected in the contract prices.

Where it is clear that working space will be required by the contractors, the district valuer should arrange for the temporary use of such land while he is negotiating for the land needed for permanent work. This would apply to working space required for the construction of bridges, for temporary diversions of traffic and for the narrow strip of land on the outside of the road width to allow the fence to be erected.

Any land required temporarily by the contractor for his offices and stores and for temporary spoil heaps, etc., should, of course, be the responsibility of the contractor, as his method of construction may have an influence on their location.

#### Design and Layout

Mr. Bowdler has in his Paper referred to the two most important and widely known defects in the design of the motorways which are now in use, namely the width of formation and the construction of the hard shoulders. The formation width of 88ft. (in the case of two-lane carriageways) is inadequate for road construction, so is the grass hard shoulder. As a result of the lessons learned from the motor roads already constructed, it now seems agreed that the formation width for future motorways is not likely to be less than 100ft. This will include 10ft. wide hard shoulders, having an all-weather surface and a construction depth adequate for heavy vehicles. It is an advantage if the hard shoulder is surface dressed to contrast in colour with the carriageway. A kerb at the back of the hard shoulder would also provide a definition of the edge, would improve drainage and would discourage vehicles from over-riding on to the soft verge.

Concerning the number of lanes, I would make the following observations in the light of experience gained on M.1 and the St. Albans By-pass. With the extremely mixed traffic using motor roads, a dual two-lane carriageway can only be adequate for its full design speed of 70 m.p.h. under conditions of low traffic density. A three-lane carriageway is needed if a speed of 70 m.p.h. is to be achieved safely, since on a busy road the inner lane will be used by the slower heavy vehicle, to the exclusion of all others. It may be that estimated traffic volumes only require a two-lane carriageway and in the interest of economy this restricted width could be constructed as a first stage. It would, however, always be prudent to allow sufficient width, in the land acquired, in the construction of the bridges and in the formation of earthworks to enable an extra lane to be added when necessary. After all, a considerable sum of money

has been expended in producing a road designed for safety at high speeds and if this is not achieved in practice, much of this expenditure is wasted.

The motorist leaving the motorway after a period of high-speed travel takes a short time to readjust himself to normal road conditions and the slip road is obviously his first hazard. All two-way slip roads should in my opinion be designed as dual carriageways and hard shoulders should be provided. Under no circumstances should the combination of flush kerbs and soft shoulders be employed. It would also be desirable to increase the radius of horizontal curves on slip roads leaving the motor road. At present a minimum radius of 180ft. is used. This is only a 25 m.p.h. curve and I would prefer to see one suitable for 40 m.p.h. substituted.

The location of interchanges on a motorway will usually be governed by the presence of existing trunk or other important roads. It does not, however, follow that all important roads are so connected. The number of interchanges, even in an urban area, should be kept to a minimum. Where several important roads are crossed in close succession, one will be selected for the interchange and the others connected together, if necessary, off the motorway. In order to determine which roads should be connected to the motorway, traffic studies of the area in question will usually have to be carried out.

The actual siting of the interchange is important. Wherever possible it is better located in cutting as this will permit gradients on the slip road to work for and not against vehicles joining or leaving the motorway. The same care should be given to the selection of a site for a service area. Again, the road should, if possible, be in cutting. This will usually present a much more pleasing position for the service area than when the road is on an embankment. Under these conditions the slip roads again work for the motorist both when entering and leaving the area and also, if the motorway is in cutting, it will be simpler to construct the bridge connecting the two halves of the service area.

#### Landscaping

Every effort should be made to merge the road into the landscape. Such efforts are unfortunately severely restricted by the limits of the Centre Line Order and from the economy in the use of land imposed by agricultural interests. A very pleasing feature of rural motorways in this country is the successful co-ordination of horizontal and vertical alignment.

The appearance of the road could, I feel, be further enhanced by departing more often from the monotonous parallel ribbon of road by here and there increasing the widths of side verges to allow new tree planting and by spreading out the carriageways to incorporate some feature in the central reservation. On very steep side-long ground, the carriageways may be separated in both line and level. Economy can often be achieved by reducing the width of the median on a long viaduct, but unless this is treated very carefully it may result in ugly tapers at either end.

#### Bridges

Bridge construction on motorways is an entirely different operation from that of constructing individual bridges. It becomes a highly organised procedure to design and construct a large number of bridges at one time. Except for very large structures, there seems to be no reason why the present practice of constructing the road and the bridges in one single contract is not, on balance, the right procedure. Therefore the two major operations of road construction and bridge building should be designed to proceed together.

Every designer feels instinctively that the construction of a large number of bridges on a motorway should be an ideal exercise in standardisation. This, however, is not by any means wholly the case.

Despite the apparent regularity of a motor road, each site has its own local peculiarities and the best that can usually be achieved is that bridges are reduced to a few prototypes that can reasonably be adjusted to fit the actual sites.

One type of structure that has proved satisfactory is the normal in-situ reinforced concrete bridge using standardised shuttering as far as possible. Where, however, it is necessary to keep the programming of road operations as flexible as possible, the use of a simply supported precast deck will be preferred but in positions where earthmoving operations are not predominant, continuous structures will probably be more suitable. There is now a tendency against the use of post-tensioning methods for motorway bridges owing to the time factor. Although general standardisation is not possible, a considerable amount of standardisation of detail can be carried out. Thus expansion joints, handrailing and, possibly most important of all, concrete shuttering and the general detailing of the steel reinforcement in r.c. structures can with advantage be standardised. In this latter connection, time and money can be saved if standard or semi-standard methods are used, even if some bridges carry slightly more reinforcement than is necessary.

#### Light Structures

The problems relating to the construction of bridges on the motorway are not confined to consultants alone but are common to all who design such roads. Indications are that there is a trend for the structures to be of the light open type with open parapets. An advantage of this type of structure is that there is the minimum of interference of the sight line with parts of the structure. Also to this end for more obvious reasons of safety I should like to see the pier in the central reservation more often omitted. This, however, can rarely be justified on economic grounds.

The aesthetic treatment of bridges, particularly bridges over the motorway, needs a careful and somewhat new approach. On a long length of road, over-bridges occur reasonably frequently, and it would appear that attempts should be made to produce an architectural feature of the whole rather than for individual bridges. This does not, of course, mean that we should have a succession of exact replicas but the structures should all have something in common.

Current work now under construction has, I suggest, shown that it is not desirable to make motorways the subject of experimental work. Owing to the very large quantities involved, every method of construction should be well proved and, what is more important, should not be too much affected by inclement weather.

The engineer is always seeking new ideas for reducing the cost of construction, but it must always be borne in mind that what may be economic for small-scale road works is not necessarily suitable for motorways.

#### Time for Construction

As Mr. Bowdler pointed out in his Paper, the 19-month period of contract has little to commend it. Too often the length of contract is thought of only in the net time of shifting so many yards of excavation, or of building of so many bridges, or laying so many miles of carriageways. All these operations have to be carried out correctly according to a carefully prepared specification.

Most schemes have taken some five years to prepare and it does seem unfortunate that, for the sake of a few extra months, the quality of the work should be sacrificed for what are usually purely political reasons. However much thought is put into the preparations of these large projects, it is inevitable that emergency decisions will have to be made during the period of construction and time should be available to do this in a reasonably calm atmosphere. I would strongly advocate

(Concluded on page 1350)



## HOLBORN SWIMMING BATH IS INCORPORATED IN OFFICE BLOCK

**A** FEATURE of the new indoor swimming bath which was opened recently for Holborn Borough Council is its incorporation in an 11-storey private enterprise office block.

Adjoining the existing Oasis open-air pool at the corner of High Holborn and Endell Street, the new swimming bath is the first covered pool of metric length in the country, being 25 metres long by 9 metres wide. The depth of water varies from 3ft. at the shallow end to 6ft. at the deep end.

### Unusual Features

Among the many unusual features included in the design of the bath are the following: A 92ft.-long glass screen wall between the indoor bath and the open-air pool, which can be fully opened in summer to give access to the sunbathing terraces and the outdoor pool; an underwater glass window, 30ft. by 2ft. 6in., set in one wall of the pool, which will be used for television facilities and instruction purposes; and floor heating through embedded low pressure hot water coils. Condensation is eliminated and echo reduced by use of a ceiling of Western red cedarwood.

Winter temperature of the indoor pool water will be up to 86 degrees; the temperature of the pool atmosphere and the dressing rooms 72 degrees; and the approaches to the pool 65 degrees.

No diving boards are provided, as ceiling height had to be kept reasonably low to accommodate the sunbathing terrace above.

The bath has non-slip tiling and an 8in. raised curb to prevent any water which might collect running back into the bath. Above the glass screens on the right hand length of the pool are warm air grille heaters in the ceiling, to prevent condensation and possible draught.

### General Layout

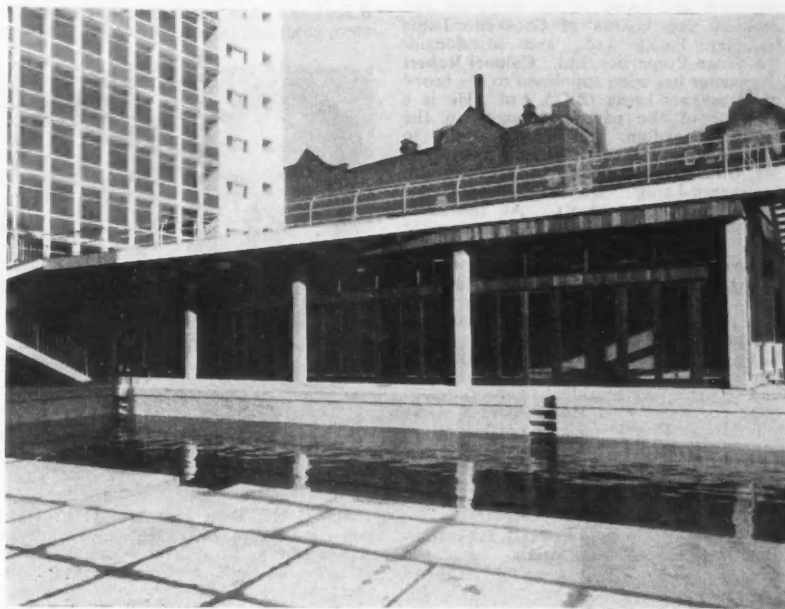
The entrance to the Oasis pools is in High Holborn at the western end of the new building, separated by some 30yd. from the entrance to the office block.

Immediately inside the swing doors is the entrance pay desk for the pools and slipper baths, entrance to the latter being through a separate corridor.

On the left, with a secondary entrance which can be used when necessary, is a large ground floor room specially designed to serve a double purpose. In the winter when there are fewer swimmers, it will be used for meetings and exhibitions, and the men's and women's changing cubicles will be arranged on the lower ground floor.

Outside, at the rear of the indoor pool, a small play area has been set aside for children, consisting of a paddling pool and sandpit, at different levels.

The sun decks and terraces will accommodate approximately 500 sunbathers, the roof of the indoor pool providing an area 104ft. by 55ft. Over a basement car park



The existing outdoor pool, with indoor pool glass wall screen and sunbathing terrace behind

In the summer, this ground floor room will be the men's changing room, the complete lower ground floor dressing accommodation being allocated to women. This re-arrangement between winter and summer can be easily carried out as all cubicles and counters are demountable.

Facing the open-air pool is a cafe, which will also serve non-bathers, who will enter from a separate corridor. The patio outside the cafe will have tables and chairs and a coloured sun-blind in summer.

a further terrace area of 104ft. by 32ft. is provided.

Terraces have decorative balustrades with bright canvas panels, the whole effect being to give the pools and terraces a ship's deck atmosphere. Light refreshments can be served on the main upper terrace from a lift connecting with the cafe.

### Filtration and Circulation

A cross filtration system, one of the first in this country, has been used in conjunction with a water circulation system which ensures that at no time does the bath's water come into direct contact with ferrous metal, thus eliminating risk of rust and discoloration in the water.

A Becco filtration plant installation handles the pool's 63,500-gallon capacity, the turnover time being 2½ to 3 hours.

The filtered, heated and chlorinated water proceeds via the filtered water main to the eastern side of the pool, where four inlets to the pool are inserted equidistant 1ft. above bath bottom. Saunders valves, rubber lined, adjust the rate of flow.

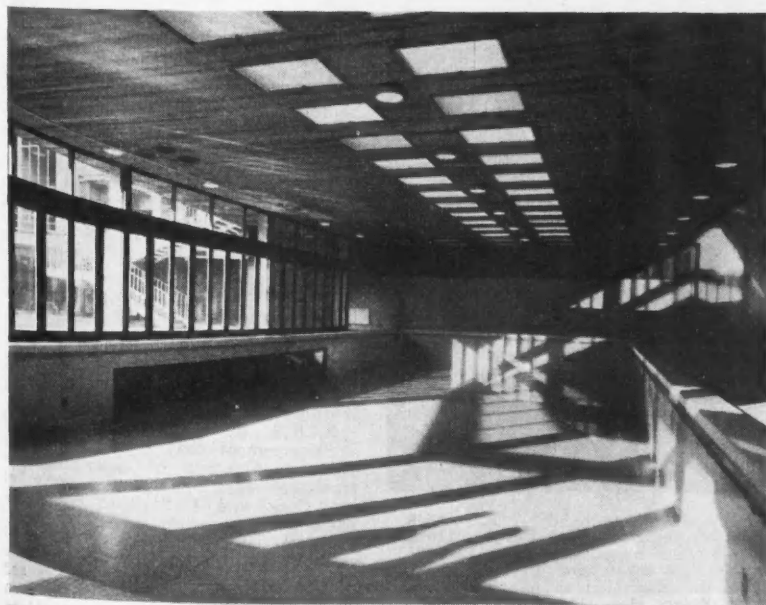
Water travels across and upwards, surface water is extracted at both ends of the bath, and this can be directed either to drain or to filters.

Extraction of water is through four outlets set equidistant along the west side of the pool. These outlets are regulated for rate of flow at will. The whole pipe water range is cast-iron cement spun lined.

The scheme for the development of the Oasis site was evolved by Holborn Borough Council in 1956, in which year it approved plans prepared by the Borough Architect, and a model of a 10-storey office block and new covered swimming pool.

Owing to stringent Government restrictions on capital expenditure at that

(Concluded on next page)



The indoor pool showing closed glass wall screen and underwater window

## Men and Movements

**GROSVENOR-LAING** have announced from Vancouver that the **Hon. Frank M. Ross** will take over the chairmanship of Grosvenor-Laing (B.C.), Ltd., following reorganisation of the board consequent upon the retirement of **General Sir Ouvry L. Roberts** as president at the end of the year. **Mr. Wallace B. Haughan**, the present chairman, becomes president and vice-chairman of the company. General Roberts has agreed to continue to serve on the board of the company and also on the boards of Grosvenor-Laing (Langley Park), Ltd., and Macdonald-Buchanan Properties, Ltd. **Colonel Robert Grosvenor** has been appointed to the board of Grosvenor-Laing (B.C.), Ltd. He is a director of the parent company in the United Kingdom, and will continue to serve on that board. **Mr. John Little** and **Mr. Gilbert J. Hardman**, vice-presidents of Grosvenor-Laing (B.C.), Ltd., become executive vice-presidents. At the same time Grosvenor-Laing have announced their plans to form two new companies, Grosvenor-Laing Development Company (B.C.), Ltd., and Grosvenor-Laing Estates, Ltd. The **Hon. Frank Ross** will be chairman and **Mr. Haughan** president and vice-chairman of these new companies. **Mr. Little** will be executive vice-president of the estates company. **Mr. Hardman** will be executive vice-president of the development company, with **Mr. Thomas S. Gray** and **Mr. F. Donaldson** vice-presidents.



J. P. FEATHERSTONE

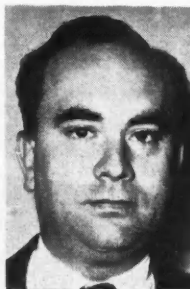
Succeeding the late **Mr. Hugh Cowan-Douglas** as a director and chairman of Glenfield and Kennedy Holdings, Ltd., is **Sir James R. H. Hutchison**. **Mr. J. Douglas Latta** has joined the board.



Seen at the recent Ford sales convention in Hamburg (left to right): **F. R. McNally** (Morewear Dumpers, Ltd.); **V. C. E. Chitty** (manager, domestic industrial sales department, Ford's tractor division); **G. E. E. Tapp** (County Commercial Cars, Ltd.); **R. Smith** (R. Smith (Horley), Ltd.); **R. E. W. Cole** (domestic industrial sales department, Ford's tractor division); **S. J. Burton** (Chaseside Engineering Co., Ltd.); **L. W. Matthews** (Matbro, Ltd.); **H. G. Poole** (Harold Poole (Consultants), Ltd.); **F. D. Moore** (Rotary Hoes, Ltd.); **R. A. Hudson** (Robert Hudson, Ltd.); **D. F. Burns** (Merton Engineering Co., Ltd.); **J. Widdowson** (F. E. Weatherill, Ltd.)

**Mr. E. C. Scott**, formerly sales director of Dennis Brothers, Ltd., has been appointed fleet sales supervisor of Perkins Engines, Ltd., and will operate mainly in the North. **Mr. Scott** will be responsible for maintaining personal contact with large fleet users.

Two appointments have been announced by The Ruberoid Co., Ltd. **Mr. R. L. Bonafont**, A.M.I.C.E., A.M.Soc.I.C.(France), B.Sc.(Eng.), has been appointed development engineer, responsible to **Mr. J. Grant**,



R. L. BONAFONT



C. A. L. SCOTT

development manager. **Mr. C. A. L. Scott**, B.Sc.(Mech.Eng.), joins the company as assistant to the general works manager, **Mr. W. M. Parsons**.

**Mr. R. H. Dent** and **Mr. T. C. Hale**, joint managing directors of The Cape Asbestos Co., Ltd., have been appointed directors of Small and Parkes, Ltd. **Mr. Dent** has also been appointed chairman of the company. **Mr. G. W. Parkes**, who has been a director of Small and Parkes for forty years, and for the last eleven years has been chairman, will continue as joint managing director until April, 1961, when he will retire from that office and from the board.

The new council of the National Paint Federation have made the following appointments: **Mr. Stanley W. Greig** becomes president; **Mr. Keith L. Thornbery**, vice-president; and **Mr. Laurie H. Williams**, honorary treasurer. The immediate past president is **Mr. Leslie B. Farmiloe**. **Mr. L. D. Stewart** and **Mr. F. A. Guthrie** become new members of the council.

**Holland & Hannen and Cubitts** (Great Britain), Ltd., have appointed **Mr. C. M. Goodall** as manager, special finance. **Mr. Goodall** was previously a manager and investment manager of Erlangers and later manager of Philip Hill, Higginson, Erlangers.

**Sanders and Forster, Ltd.**, the structural engineering company of the Chamberlain group of companies, have announced that **Mr. J. F. D. Wood**, the sales manager of the standard steel building division, has left by air for a sales promotion tour of East Africa. During his tour **Mr. Wood** will be visiting Addis Ababa, and will then proceed to Nairobi and Dar-es-Salaam, where he will call on the company's agents. **Mr. Wood** will also visit Mombasa, where he will meet prospective clients and the company's agent.



J. F. D. WOOD

**J. G. Thompson and Sons (Contractors), Ltd.**, have appointed their general manager, **Mr. D. M. Brisbane**, to the board of directors.

**Mr. J. G. Staiger** has resigned from the board of Massey-Ferguson (United Kingdom), Ltd.

(Concluded from previous page)

time, it was impossible for a local authority to proceed with the development in the normal manner. It was therefore decided to open negotiations for the financing of the whole scheme by a commercial undertaking.

An agreement was finally entered into with the Hammerson group of companies for the building work based upon a capital payment for the Council's part of the project and a ground rent for the offices.

The office accommodation from the first to the tenth floors provides about 50,000sq. ft. of usable floor space. Most floors contain one large office area designed for easy partitioning and incorporate toilet facilities for both sexes, thus ensuring that each floor is a self-contained area with all its own ancillary services. Continuous panel heating fired by oil boilers is provided throughout.

There is a basement car park for 21 cars, with access from Endell Street.

The basement boiler-house will serve all the buildings on the site including the central heating of the new swimming bath, the new office block, and the existing slipper baths and public and establishment laundries.

The plant comprises two Davey Paxman Economic triple pass "package" boilers, each boiler having an evaporative capacity of 3,500lb. of steam per hour, from and at 212 degrees Fahrenheit.

Work began on the project in July, 1959. The Borough Council's part of the scheme being estimated to cost about £110,000.

### Consultants and Contractors

The whole Oasis site scheme was originally designed by the Council's borough architect, **Mr. S. A. G. Cook**, A.R.I.B.A., but upon the conclusion of the agreement to develop with the Hammerson group of companies, joint architects were appointed, consisting of **Mr. Cook** and **J. Seymour Harris and Partners**, Birmingham.

**Mr. W. V. Zinn** was the structural engineer, and the quantity surveyors were **Oswald E. Parratt and Associates** and **H. R. Heasman and Partners**. The main contractors were **Sir Robert McAlpine and Sons, Ltd.**

## MODERN CLEANSING DEPOT OPENED AT SALFORD

**F**ACILITIES for the maximum recovery of salvage and the extraction of dust for covering new tipping sites are incorporated in a new cleansing depot which has been built at Salford by the city's direct labour department.

Erected on a three-acre site at a cost of about £220,000, the depot has a capacity of 200 tons of domestic refuse and equipment for the incineration of a further 15-20 tons of trade waste a day. It was built to the requirements of the Director of Public Cleansing, Mr. F. L. Stirrup, and the city engineer, Mr. G. A. McWilliam, the building work being under the supervision of Mr. S. W. Johnson, the general manager. The reception handling and screening plant, together with the incineration unit and chimney, were designed and erected by Heenan and Froude, Ltd., Worcester.

Basically, the group of buildings, which includes a reception hall, filter house, salvage building (screen room, picking floor and bailing room), dust hopper building, tailings, hopper building and incinerator house, consists of load bearing brick walls, generally 9in. thick, stiffened by brick piers. The brickwork comprises rustic facing bricks backed by common bricks and all walls terminate in precast art stone copings.

The roofing is of lightweight protected metal roof decking with  $\frac{1}{2}$ in. insulation board and a single layer of 100lb. mineral-surfaced felt, supported by steel Pratt trusses whose top booms slope at approximately  $1\frac{1}{2}$  degrees. This arrangement gives a roof which is self-draining yet almost flat. At each end of the trusses a mansard section of the roof slopes at about 35 degrees down to a parapet wall gutter.

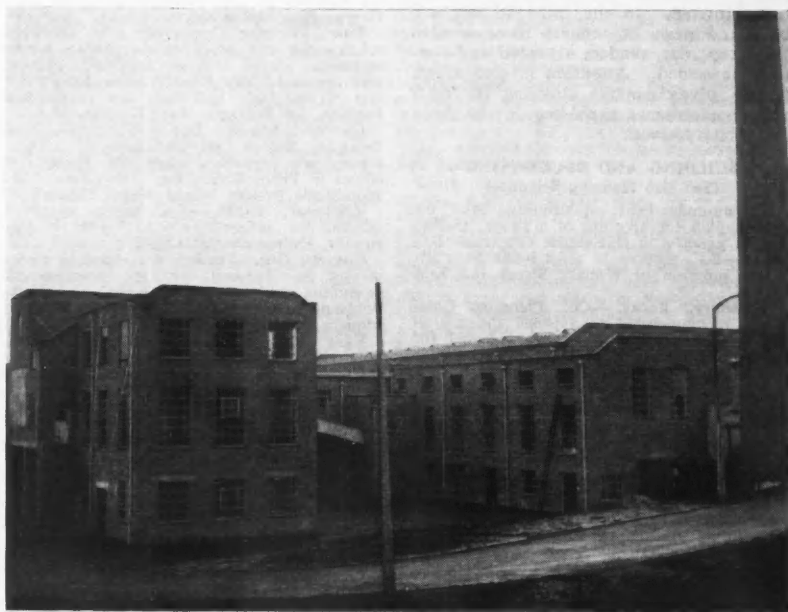
Due to the original configuration of the site, the floor level of the reception hall is at 116ft. A.O.D. and the floor level of the other buildings in the group is at 98ft. A.O.D. This has necessitated fairly extensive reinforced concrete retaining walls on the south side of the salvage buildings and along the tipping beam in the reception hall through to the incinerator house.

The plant in the picking room is carried by a reinforced concrete floor slab and

beam system at a height of 15ft. above the baling floor and the loads from this floor are supported by reinforced concrete columns. The picking floor is, therefore, virtually independent of any support from the walls. A similar idea is used for the floor supporting the tailing hopper, but in this case the columns have also to

and frame, the tailings floor and the picking floor consists of 1:1½:3 concrete with Tentor reinforcement.

Attached to the salvage building is a salt and sand store constructed entirely in reinforced concrete. This store is divided into six separate bays, each of which can hold 100 tons of salt. Bulk



External view of the depot

resist horizontal forces from the hopper steelwork due to the acceleration of the mass of tailings during discharge from the hopper.

The dust hopper, which has a capacity of 65 tons of dust, is basically a reinforced concrete box with sides sloping down to the three steel outlets and is supported by a framework of columns and beams. The reinforced concrete in the dust hopper

salt is tipped into the store from a yard at the rear at 110ft. A.O.D. and extracted by loading shovel at the lower yard level of 98ft. A.O.D.

### Sequence of Operations

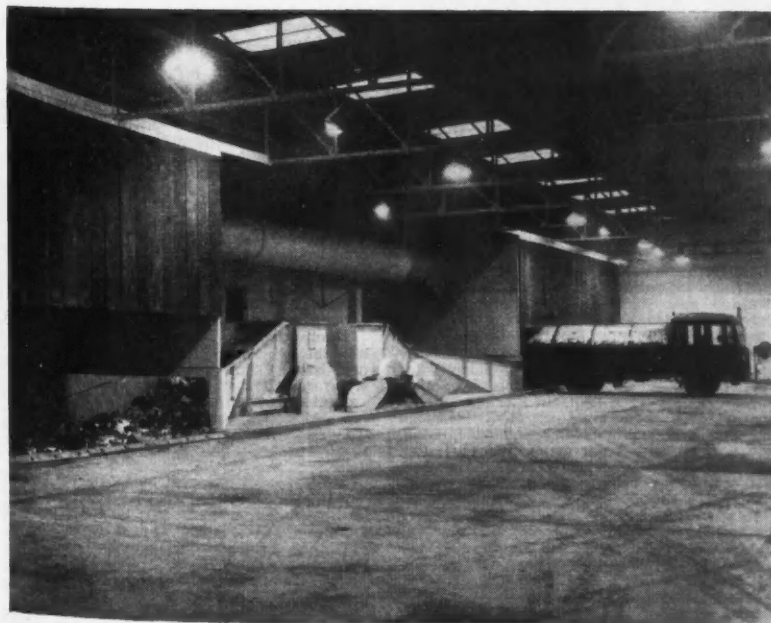
Bulky, combustible articles are removed from the collection vehicles as they enter the reception hall. This material is then passed through an opening leading to the incinerator receiving platform, after which the remainder of each vehicle's load of crude refuse is tipped into one of the two reception hoppers, each of 40ft. frontage and having a total estimated capacity of 50 tons of crude refuse. Each hopper is fitted with a conveyor of the steel plate type with an effective width of about 4ft.

Refuse from the hoppers is elevated to the rotary screen inlets by rubber and canvas belt conveyors 36in. wide travelling at 150ft. per minute. The rotary screens are fitted with mild steel perforated plates for the separation of dust and fine cinder, which are collected in a single divided chute discharging direct to the dust collection belt beneath, the balance of the refuse being passed by a further chute to the picking belts. The dust and fine cinder, travelling at 127ft. per minute on a 24in. wide conveyor then pass to a similar conveyor for elevation to the 65-ton dust storage hopper.

Screened refuse is passed to two 36in. wide conveyors, which traverse the salvage room. Salvage, sorted manually from these, is passed by chute to stillages situated on the lower floor level. Tins and other ferrous metal items, extracted by overband electro-magnetic separators are discharged by chute to a new Heenan hydraulic double-ram baling machine and a Petrie and McNaught baler.

To cater for the disposal of combustible trade waste which is unsuited to tipping—chiefly rubberised material from the

(Concluded on page 1346)



The reception hall



# Current Construction Activities

## PROJECTS • CONTRACTS • AWARDS

**THIS** editorial feature provides readers with a comprehensive news service covering forthcoming private and public construction work. Commencing on this page information is given concerning future projects followed by details of tenders being invited. In the third section will be found news of tenders recommended for acceptance, tenders accepted and contracts awarded. Attention is also drawn to the advertisements covering contracts and appointments appearing in the front part of the *Journal*.

### BUILDING AND DECORATING (See also Housing Schemes)

**Ashton-under-Lyne.**—Ministry have approved plan for erection of 6 shops, 18 flats and 11 garages on Hazlehurst estate, for B.C. **Ayr.**—B.C. propose to erect baths on a site at the junction of Wallace Street and King Street.

**Aylesbury, Bucks.**—Co. Planning Committee recommended to approve the use of land at 3 Walton Terrace for a hostel for sub-normal children.

**Banbury, Oxon.**—Ministry have approved revised plans for the erection of the Banbury training centre, for C.C. Estimated cost £11,000.

**Basingstoke, Hants.**—B.C. recommended to prepare alternative schemes with sketch plans for the construction of an indoor swimming pool.

**Batley, Yorks.**—Kenneth Turner, 70 Commercial Street, is the architect for the erection of a filling station, car showrooms, modern restaurant, cocktail bar, car park, servicing centre and hotel accommodation at junction of Bradford Road and Stocks Lane, for Joshua Shaw and Sons, Ltd.

**Billinge, Lancs.**—C.C. have approved the erection of a branch library during 1961-62.

**Bishop Auckland, Dur.**—D. V. Roper and Co., Bondgate, propose offices in the Market Place.

**Blackpool, Lancs.**—B.C. to provide garage at South Shore police station, subject to Home Office approval, estimated cost £1,648; have approved alterations at the old Talbot Road police station buildings, £1,600; to apply for sanction to borrow £65,000 for underground toilets at Manchester Square.

**Bolton, Lancs.**—B.C. recommended to approve plans for Phase 2 of the adaptations at the Morris Green St. Bede's C.E. Junior School to provide a new kitchen, increased hall space, suspended ceilings, plastering of walls and increased window space. Estimated cost £16,145.

**Bradford, Yorks.**—City Council have approved the provision of a new central library. Estimated cost £500,000.

**Bridgwater, Som.**—Plans have been prepared for the construction of a supermarket at junction of Binford Place, and Fore Street, for West Somerset and East Devon Co-operative Society, 16 Fore Street, Tiverton, Devon.

**Bridlington, Yorks.**—B.C. recommended to approve plans for extension of the Corporation's factory building leased to Rigg Holdings, Ltd.

**Brentford and Chiswick, Middx.**—B.C. are to consider scheme for a new branch library in the Ealing Road area of the High Street.

**Bromley, Kent.**—B.C. recommended to approve for inclusion in 1960-61 programme, scheme for the erection of a pavilion, layout and drainage of central area, etc., at Norman Park. Estimated cost £22,030.

**Camberwell.**—L.C.C. approved the erection of a kitchen and a hall at Brunswick Park Primary School. Estimated cost £20,700.

**Cardiff.**—City Council are considering scheme for the provision of a wholesale market at Leckwith.

**Carlisle, Cumb.**—Border Engineering Contractors, Ltd., 125 Queen Street, Whitehaven, are to erect new offices at Milbourne Street, to plans by A. F. Sewell, 1 Warwick Road, Carlisle.

**Castle Ward, Northumb.**—R.D.C. propose abattoir at Ponteland.

**Chatham, Kent.**—B.C. recommended to approve scheme for the reinforcement of part of car park boundary wall at Riverside, estimated cost £5,500; prepare detailed plans

and bills of quantities, and invite tenders in due course for extension to branch library, hall, changing rooms, lavatories and pavilion at Hook Meadow; approve for inclusion in 1961-62 programme scheme for provision of new changing and toilet accommodation at Maidstone Road sports ground; prepare plans for erection of old people's home at King George Road extension.

**Town Planning Committee** have approved scheme for the erection of printing works including stores, offices and car parking facilities at 12 New Road Avenue, for Parrett and Neves, Ltd., architects are Farms and Partners, 24 Welbeck Way, London, W.1.

**Chester-le-Street, Dur.**—Fennell and Baddiley, Bridge End Chambers, Chester-le-Street, are preparing plans for shops and offices in Front Street, for I. Berriman, Ltd., Woodlands Joinery Works, Fence Houses.

**Clitheroe, Lancs.**—C.C. have approved scheme for improvements to houses in Upbrooks. Estimated cost £2,500.

**Consett, Dur.**—Tenders are expected to be invited in January for the erection of swimming baths for the U.D.C. J. G. L. Poulson, architect, 54 Albert Road, Middlesbrough. Estimated cost £125,000.

**Vaux and Associated Breweries, Ltd., Sunderland,** propose rebuilding of "Britannia Inn," Victoria Road, E. M. Lawson, architect, Barras Buildings, Barras Bridge, Newcastle upon Tyne.

**Darlington, Dur.**—Plans have been prepared by H. B. Richardson, 3 Skinnergate, for the erection of office and workshops at Priestgate, for the North of England Newspaper Co., Ltd.

**Daventry, Northants.**—B.C. to appoint an architect to prepare preliminary plans and layout for the erection of new offices on land adjoining the present council headquarters.

**Doncaster, Yorks.**—Foster-Smith and Anderton, 37a Hallgate, are the architects for erection of a new church hall for the Belle Vue estate on a site at the rear of Thoresby Avenue and Lime Tree Avenue. Estimated cost £10,500.

**Droxford, Hants.**—C.C. recommended to approve scheme for the erection of a divisional office at the road depot together with an oil store, plant shed, workshop, cement store and general store to replace existing temporary buildings. Estimated cost £12,500.

**Dudley, Worcs.**—Ministry have approved in principle the provision of a youth centre at Russell's Hall estate, for B.C. Borough Architect to prepare sketch plans. Estimated cost £18,000.

**Dunmow, Essex.**—R.D.C. to prepare scheme for the modernisation of 63 dwellings at Thaxted, Little Easton, High Roding, White Roding and High Easter.

**Goole, Yorks.**—West Riding E.C.'s provisional list of schemes for the new financial year includes proposals for improving the waterborne sanitation at Camblesforth School at a cost of £500; waterborne sanitation at Carlton-in-Snaith School, £500; rehabilitation of Brayton School, £20,000; and improvements to Goole County Secondary School (including provision of storage facilities), £5,000.

**Enfield, Middx.**—Working drawings are being prepared for the erection of a factory at Crown Road, Crown Brickworks, for Polak and Schwarz, Edward D. Mills and Partners, architects, and Leslie W. Clark and Partners, quantity surveyors, both of 9 Richmond Buildings, London, W.1, and Bylander, Waddell and Partners, 169 Wembley Park Drive, Wembley, are the consulting engineers.

**Epsom, Surrey.**—Tenders to be invited early in the new year for the erection of the new St. Clements R.C. Church at Stoneleigh, for the Trustees of the R.C. Diocese of Southwark, Justin H. Allyn, 1a Berners Street, London, W.1, is the architect, H. R. Heasman and Partners, 3 Bloomsbury Square, London, W.C.1, the quantity surveyors, and C. J. Pell and Partners, 4 Manchester Square, London, W.1, consulting engineers for scheme. Estimated cost £25,000.

**Falkirk, Stirlings.**—Baron Bercott, 118 Blythwood Street, Glasgow, C.2, is the architect for new municipal buildings to be erected on a seven-acre site at West Bank for B.C. Estimated cost £500,000.

**Frimley and Camberley, Surrey.**—Co. Planning Committee have approved scheme for development of land at the junction of Berkshire Road and Upper College Road, Old Dean

estate, Camberley, comprising a petrol filling station and service garage with living accommodation over and two groups of four shops with maisonnettes over and one group of four single-storey lock-up shops, and public lavatory, all in the form of a pedestrian shopping precinct, for U.D.C.

**Girvan, Ayr.**—B.C. have approved in principle the redevelopment of the area surrounded by Bridge Street, Old Street, Montgomerie Street and Hamilton Street, to include houses, a car park, shops and offices.

**Guildford, Surrey.**—B.C. recommended to invite tenders for the erection of 12 garages and construction of an access road at Great Goodwin Drive; approve in principle scheme for a three-storey building comprising four shops and nine flats at Park Barn; appoint J. B. Mark and Partners, 106 High Street, as quantity surveyors for extension to municipal offices at Upper High Street.

Ministry have authorised B.C. to invite tenders for the erection of a new depot and vehicle repair shop.

Co. Town and Country Planning Committee to submit to Ministry for approval, application by Guildford Theatre Board for the erection of a theatre at Millmead.

**Halifax, Yorks.**—Borough Engineer to prepare plans for provision of branch library at Lydegate, Northowram.

**Hambledon, Hants.**—C.C. recommended to approve scheme for alterations and improvements to school house at Hambledon County Primary School. Estimated cost £956.

**Hinckley, Leics.**—U.D.C. to include in the 1961-62 estimates scheme for the completion of the Burbage branch library. Estimated cost £3,000.

**Hull.**—Humber Conservancy Board, Whitefriargate, have approved in principle scheme for the erection of a new buoy shed and slipway on the river front site. Estimated cost £100,000.

**Eastbourne, Sussex.**—B.C. recommended to approve scheme for erection of an extension to existing building for bulk storage of corn at the Cornish Farm, estimated cost £2,000; for inclusion in 1961-62 programme scheme for repainting and repair of exterior at Devonshire Park Theatre, £1,500; prepare plans for the construction of a centre in a two-storey building on part of Stone Cross playing field.

**Goole, Yorks.**—B.C. have approved in outline principle a scheme to redevelop the whole of the market square area in Boothferry road. Scheme will involve demolition of the present hall, building a new market hall at the rear of Boothferry Road, and rebuilding the empty Cinema Palace to convert it into a food market. Scheme will be carried out by the Corporation in conjunction with a property group who have obtained an option on the Cinema Palace building and site.

**Gosport, Hants.**—B.C. recommended to approve plans for rebuilding departmental store at 55 to 59 High Street, for Portsea Island Mutual Co-operative Society, Ltd., 110 Fratton Road, Portsmouth.

**Hammersmith.**—A three-storey science block and other improvements, costing a total of £104,380, are proposed at St. Clement Danes Grammar School.

**Haslemere, Surrey.**—U.D.C. have approved in principle the construction of a swimming pool. Site not yet selected. Estimated cost £16,000.

**Hersham, Surrey.**—C.C. have approved for inclusion in the 1960-61 programme, scheme for a branch library. Estimated cost £12,400.

**Herefordshire.**—E.C. seeking planning permission for the erection of a grammar school near Fayre Oaks Cottage in Kings Acre Lane, Hereford. Estimated cost £250,000.

**Hexham, Northumb.**—R.D.C. has revived its scheme for the construction of a new Council Chamber to cost about £10,000. Fresh tenders will now be invited. The architects are W. Dixon and Son, 1 Collingwood Street, Newcastle upon Tyne.

**Holborn.**—L.C.C. town planning permission is being sought for offices, hotel accommodation, public house and shops at junction of Shorts Gardens and Drury Lane, for which the architects are Ronald Ward and Partners, 29 Chesham Place, London, S.W.1.

**Ilfracombe, Devon.**—U.D.C. have approved site near the Zoo and football ground for the erection of a new county secondary school.

**Jarrow, Dur.**—Plans have been prepared by Fennell and Baddiley, Bridge End Chambers, Chester-le-Street, for addition of sanitary annex at Palmer Hospital, for Newcastle Regional Hospital Board.

**Kesteven.**—C.C. have approved the following schemes: Provision of a day room at St. George's Home, Stamford, £2,500; reslating of the Bluecoat and St. Michael's Schools, Stamford, £700; up-grading of St. George's School, Stamford, £1,582; caretaker's house at Corby Glen School, £2,500.

**Kettering, Northants.**—Montague Burton, Ltd., Hudson Road, Leeds, 9, propose the erection of a store on the White Horse site, High Street.

B.C. recommended to approve scheme for repairing the guttering of 600 council houses. B.C. to submit to Ministry for approval, schemes for the erection of 9 garages at junction of Rosewood Place and Cedar Road and 6 at Northumberland Avenue. Estimated cost £1,370 and £958 respectively.

Ministry have approved scheme for 29 garages at Sussex Road for B.C. Estimated cost £3,768.

**Kington-upon-Thames, Surrey.**—B.C. have submitted to Co. Planning Committee for approval, scheme for extension at 22 Gloucester Road, comprising a communal sitting-room, six double and six single rooms and lavatory accommodation.

B.C. recommended to invite tenders from selected contractors for repairs to chimney stacks on the Norbiton Estate.

**Langport, Som.**—R.D.C. have approved the provision of an underground convenience at north-eastern end of the Parish Roads.

**Leeds.**—Town Planning and Improvements Committee have granted a lease to Modern Exhibition Services, Ltd., Manchester House, Burnley Road, Halifax, for conversion of the former central tram depot in Swingate, into an Exhibition Hall and car park.

Plans approved for erection of a new printing works, paper warehouse and offices bounded by York Road, Upper Accommodation Road and Shannon Street for Jowett and Sowry, Ltd. G. Alan Burnett, architect, 8 Blenheim Terrace, and Holmes and Walker, 16 Blenheim Terrace, are the quantity surveyors. Estimated cost £125,000.

Gillinson and Barnett, 8 Queen Square, are the architects for erection of a departmental store on the site of Powolny's Restaurant in Bond Street, for Maurice W. Tiplady.

A contract is being negotiated with Myton, Ltd., Western House, Western Avenue, London, W.5, for the erection of a flattened factory with warehouse and offices at Byron Street and Darley Street, off North Street, for Grant Leeman and Co., Ltd. Gillinson and Barnett, 8 Queen Square, Leeds, 2, are the architects. Estimated cost £140,000.

**Leicester.**—City Council recommended to approve scheme for provision of a museum in basement area of proposed Vaughan College at Talbot Lane, and Welles street, estimated cost £17,010.

City Council recommended to approve sale of land fronting Swan Street, Warrington Street redevelopment area, to Dryad, Ltd., Northgates, Leicester, for erection of premises to replace property in St. Nicholas Street.

**Leyton, Essex.**—B.C. recommended to approve in principle scheme for the erection of a flattened factory at site in North Birkbeck Road.

**Limerick, Eire.**—John Thompson, 65 O'Connell Street, Limerick, is the architect for the rebuilding of the Royal George Hotel. Estimated cost £150,000.

**London.**—L.C.C. approved the preparation of preliminary plans for the erection of new day special schools at Stoke Newington, £58,000; Banim Street, Hammersmith, £60,500; Wandsworth, £55,000; and Charlton Park, Greenwich, £150,000.

**Luton, Beds.**—B.C. have received the following applications for planning permission: Erection of a block of three shops with living accommodation over and garages at junction of Neville Road and Westmorland Avenue extension, for Pearce and Barker, Ltd., 71 Leagrave Road; shops and offices at 2-4 Mill Street, and 111-115 Guildford Street, for Charles Franklin, Ltd., 73 Tavistock Street, Bedford; extension to factory at 19 Farley Hill, for Graham (Jute), Ltd.; five shops with living accommodation at junction of Ashcroft Road and Yeovil Road, for K. G. Ottewill, 260 Ashcroft Road.

Select Developments, Ltd., have submitted to B.C. for approval, scheme for blocks of shops and offices, a 12-storey hotel and a multi-storey car park on site bounded by Waller Street, Church Street and Melson Street. Stewart and Shirley Thomson, 19 Brompton Square, London, S.W.3, are the architects for the scheme. Estimated cost £3m.

**Lytham, Lancs.**—Scherrer and Hicks, Spring Gardens, Manchester, are the architects for erection of a new factory on part

of the former site of the R.A.F. Camp, Nr. Warton, for W. C. Evans and Co. (Eccles), Ltd. Local and planning approval awaited.

**Mansfield, Notts.**—B.C. recommended to approve scheme for the installation of tiled fireplaces and small gas cookers in 150 old people's bungalows. Estimated cost £6,000; approve in principle development of land at West Gate by the erection of five-storey shops and offices.

**Margate, Kent.**—B.C. recommended to invite tenders for erection of new café at West Bay. Estimated cost £6,000.

**Merthyr Tydfil, Glam.**—B.C. propose to erect a new fire station. Estimated cost £65,000.

**Middlesbrough, Yorks.**—Plans prepared by R. A. Easdale and Son, County Chambers, Castleford, for shop developments at Linthorpe Road for Lennards, Ltd.

**Mitcham, Surrey.**—B.C. recommended to submit to Co. Planning Committee for approval, scheme for public convenience adjoining 23 London Road.

B.C. recommended to approve, subject to conditions, plans for the erection of a building at 45-47 Christ Church Road, for The Shirley and Warbey Box Co., Ltd., the structural engineers are John F. Farquharson and Partners, 34 Queen Anne Street, London, W.1.

**Newcastle upon Tyne.**—City Council to build aged people's home on the Montagu estate.

**New Forest, Hants.**—C.C. recommended to approve scheme for the erection of a divisional office and new oil store at the Totton Road depot. Estimated cost £7,000.

**New Romney, Kent.**—County Planning Authority recommended to approve scheme for the erection of a motor transport garage at St. Johns Road, for Reeves (Motor Transport), Ltd., Wellington Road, Cheriton, Folkestone.

**Oakengates, Salop.**—U.D.C. have approved plans for extension to factory at Leonard Street, for Gasel, Ltd.

**Oxford.**—City Council recommended to prepare detailed plans for the provision of an indoor swimming bath at Headington Hill Park, estimated cost £437,000; approve plans for community centre at Wren Road.

**Oxfordshire.**—Home Office have approved in principle the provision of a new fire service headquarters, workshops and fire station at Kidlington, during 1961-62. Estimated cost £70,000.

**Paisley, Refrws.**—Department of Health have approved in principle plans for the erection of a community centre at Glenburn housing scheme for B.C. Estimated cost £20,000.

**Perth.**—F. A. MacDonald and Partners, 11 Woodside Terrace, Glasgow, C.3, are the consultants for alterations to the swimming baths in Dunkeld Road for B.C. Estimated cost £37,000.

**Peterborough.**—City Council recommended to approve in principle scheme for provision of indoor swimming pool, estimated cost £3,000; to prepare in due course, scheme for erection of a pavilion at western side of running track, river embankment.

**Poplar.**—B.C. recommended to appoint Burley and Moore, 35 Highbury Place, London, N.5, as the architects for a public convenience at Sutherland Road; appoint A. E. Seaden, 51 Cannon Street, E.C.4, as the quantity surveyor in connection with adaptations to Cubitt Town Library.

**Portsmouth.**—M.E. have approved the erection of a youth centre at Paulsgrove, for E.C. Estimated cost £46,000.

**Portsmouth.**—Parks and Open Spaces Committee to include in the 1961-62 estimates scheme for a tennis and netball pavilion at Bransbury Park. Estimated cost £4,500.

**Redcar, Yorks.**—Borough Engineer has been instructed to prepare sketch plans for new ballroom to cost about £70,000.

**Richmond, Yorks.**—B.C. recommended to apply for sanction to borrow £15,742 for improvements of the two and three-bedroom Council houses in Coronation Place, including repairs to footpaths, construction of retaining walls and fencing.

**St. Helens, Lancs.**—M.E. have approved in principle initial plans for new youth club at Parr, estimated cost £15,000, and extension to premises being used as youth club at Grange Park, £8,000.

**St. Helens, Lancs.**—Working drawings are being prepared for the erection of new headquarters at junction of Corporation Street and College Street, for the Practical Clothing and Supply Co., Ltd. William and J. B. Ellis, architects, 26 Rodney Street, Liverpool, and Dansken and Purdie, India Buildings, Water Street, Liverpool, are the quantity surveyors. Estimated cost £100,000.

**Salford, Lancs.**—City Council recommended to approve the erection of two permanent chapels at The Homestead, Stoff Lane, esti-

mated cost £5,500, and improvements to two small homes for elderly people at Ellesmere Park, the Granville and the Wentworth, £10,200.

**Salford, Lancs.**—Ormrod and Partners, 49 Rodney Street, Liverpool, are the architects for the re-building of Queen's Arms Hotel, Regent Road, Salford, 5, for Threlfall's Brewery Co., Ltd.

**Salford, Lancs.**—Tenders are expected to be invited early in the new year for erection of old people's flatlets in Tetlow Lane, for the Manchester Jewish Board of Guardians. Eric Levy, architect, Victoria Buildings, 32 Deansgate, Manchester, 3, and Frank Hyams and Partner, 28 Queen Street, Manchester, 2 are the quantity surveyors.

**Scotland.**—Western Regional Hospital Board, 351 Sauchiehall Street, Glasgow, C.2, have approved in principle the erection of two hospitals, each with 450 to 500 beds, one in the grounds of the existing Strathclyde Hospital, Motherwell, and the other in the Coatbridge-Airdrie area.

**Shrewsbury, Salop.**—M.E. have approved scheme for conversion of the basement of the technical high school into a canteen and kitchen for Co. E.C. Estimated cost £9,906.

B.C. propose the erection of 50 garages at Bell Lane, Monkmoor.

**South Shields, Dur.**—E.C. have submitted to the M.E. preliminary plans for the radar station for South Shields Marine and Technical College, and proposed Whiteleas County Infant School. The architect for both schemes is J. Smeds, 56a Camden Street, North Shields; plans have been approved for district depot and offices in Newcastle Road, for the North-eastern Electricity Board. The architects are L. J. Couves and Partners, Grainger Chambers, Hood Street, Newcastle upon Tyne; discussions are taking place between the Northern General Transport Co., Ltd., Gateshead, and the B.C. regarding land for a £60,000 bus station in Alderson Street. The firm wishes to buy the freehold of the land, but the Corporation is only willing to grant a leasehold interest.

Plans have been prepared and tenders are to be invited for the erection of new premises in Bath Street, for the South Shields' Supporters' Social Club. The architects are Page, Son and Hill, 75 King Street.

**Southwark.**—L.C.C. town planning permission is being sought for an office block at 8-11 St. George's Circus, for Bernard Sunley Investment Trust, Ltd.

**Stockton-on-Tees, Dur.**—Work is expected to start next spring on the erection of new grammar school at Stockton for the Durham Diocese. P. R. Middleton and Partner, architects, 111 Albert Road, Middlesbrough. Estimated cost £130,000.

**Stoke-on-Trent, Staffs.**—City Council recommended to instruct City Architect to proceed with preparation of sketch plans for police headquarters at Hanley.

Finance Committee recommended to apply for sanction to borrow £208,578 for the construction of an instalment of the proposed Holden Lane County Secondary School, Sneyd Green.

**Strabane, Tyrone.**—R.D.C. propose improvements to 31 cottages, including the installation of bathrooms. Estimated cost £24,000.

**Sunderland, Dur.**—Newcastle upon Tyne Regional Hospital Board are to spend £9,000 on alterations to the pharmaceutical department at Royal Infirmary. P. H. Knighton, chief architect.

**Tynemouth, Northumb.**—Hodges Brown and Co., Ltd., 25 Tynemouth Road, Newcastle upon Tyne have received permission to erect motor car showroom, petrol filling station and repair garage at Wallsend Road; Hammonds United Breweries, Ltd., are to resite the "Queens Head" public house at Cullercoats, in connection with a redevelopment scheme; revised plans have been approved for the erection of a public house at Queen Alexandra Road, North Shields, for the Northumberland and Durham Licensed Victuallers' Association (Page, Son and Hill, architects, 75 King Street, South Shields); plans have been approved for the erection of flatlets for blind people at the rear of Pearey House, Preston Road, North Shields; B.C. considering the erection of a branch library in the vicinity of Buttermere Road, Marden.

**Ulverston, Lancs.**—C.C. have approved the erection of a school clinic and child welfare centre, estimated cost £18,102; other minor works approved include adaptations to the classroom block at Bleasdale House Special School at Silverdale, £7,500; classroom block at Broughton Tower Special School, £3,500, and adaptations to library premises in County Square, £5,110.

**Walsall, Staffs.**—Health Committee have approved sketch design prepared by J. H. Rende, architect, 1 Leicester Street, for the



erection of a clinic at corner of Sneyd Lane and Sneyd Hall.

**Walton and Weybridge, Surrey.**—U.D.C. recommended to approve provision of shelters at 13 bus stops during 1961-2. Estimated cost £2,145.

**Wandsworth.**—L.C.C. approved the erection of a nursery school at Alton Estate. Estimated cost £21,100.

**Westbury, Wilts.**—The Hammerson Group of Companies, Quadrex House, Park Lane, London, W.1, have submitted to U.D.C. outline planning application for the development of the Fountainville site.

**West Hartlepool, Dur.**—Borough Engineer to prepare rough layout plan for a compact shopping centre in the Lynn Street, and Stockton Street area.

**West Kesteven, Lincs.**—R.D.C. recommended to prepare layouts for the erection of blocks of four garages between 7 and 19 Ermine Street West, Ancaster, and opposite 1 Council House, High Street, Caythorpe.

**West Suffolk.**—C.C. have approved plans for new county offices and library buildings at Schoolhall Street, Bury St. Edmunds. D. H. McMorran, 14 North Audley Street, London, W.1, is the architect for the scheme which is to be submitted to the Ministry and Royal Fine Art Commission for approval. Estimated cost £400,000.

**West Suffolk.**—C.C. have included the following in the 1961-62 programme: Old people's home at Haverhill, £53,000; ambulance depot, clinic and accommodation for two ambulance drivers at Haverhill, £28,000; health clinic at Bury St. Edmunds, £30,000; and district nurses' houses and garages at Sudbury, Newmarket, Bury St. Edmunds and Clare, £11,450.

**Weston-super-Mare, Som.**—B.C. propose scheme for the extension of the central library. Estimated cost £24,000.

**Whitehaven, Cumb.**—Planning permission granted for erection of a residential hotel at corner of Coach Road, and Low Cokicock, for J. and W. Robson, Ltd., 57 Solway Road, Kells, subject to approval.

**Wigan, Lancs.**—Plans to be submitted shortly to the Corporation Planning and Development Committee for new stand at Springfield Park for the Wigan Athletic A.F.C.

**Winchester, Hants.**—C.C. recommended to approve scheme for the construction of a shelter for county staff cars in the car park on the north side of Elizabeth II Court. Estimated cost £1,050.

**Wokingham, Berks.**—Sainsbury and Chamberlain, 14 Cross Street, Reading, are the architects for rebuilding of factory at Eastheath Industrial Estate, for Wokingham Plastics, Ltd., Denton Road, Wokingham.

**Worcester.**—City Council recommended to approve scheme for the provision of a pavilion at Bilford Road playing field, estimated cost £3,600; appoint Llewellyn, Smith and Waters, 103 Old Brompton Road, London, S.W.7, as architects for the erection of a day special school adjacent to the open air school at Wylds Lane, in 1962-63 programme, £49,970.

**Workshop, Notts.**—B.C. have approved plans prepared by J. Haslam and Sons, architects, 5, Newcastle Avenue, Workshop, for the erection of a multi-purpose public hall on site of the present town hall.

**Worthing, Sussex.**—B.C. recommended to invite tenders for the supply and erection of prefabricated pavilions at Broadwater Green, and Palatine Road sports ground, estimated cost £4,000 each; invite tenders during December for the erection of West Worthing youth centre.

Town Planning Committee have approved, subject to conditions, outline application for the erection of three ground floor showrooms with offices and flats over and car parking facilities at the rear, at junction of Nelson Road, and The Boulevard, for Mrs. W. M. Sketchley. Architects for the scheme are Read and Loveless, Halebrose Chambers, 727 Christchurch Road, Boscombe, Bournemouth, Hants.

#### DEMOLITION

**London.**—L.C.C. approved the acquisition, clearance and partial redevelopment of the following sites: Dartmouth Road site, Lewisham, £40,000; Brixton Hill site, Lambeth, £172,000; Banner Street site, Finsbury, £283,000; and The Grange Tannery, The Grange, Bermondsey, £120,000.

**Sheffield.**—Town Planning Committee are to invite tenders in the New Year for demolition of the Central Picture House, The Moor.

**Stepney.**—B.C. recommended to obtain future tenders for demolition work from a panel of approved firms.

**Worthing, Sussex.**—B.C. recommended to invite tenders for the demolition of buildings on land at junction of Park Road, and Lyndhurst Road.

#### ELECTRICAL

**Ince-in-Makerfield, Lancs.**—C.C. have approved rewiring of the Britannia Bridge County School. Estimated cost £1,499.

#### GAS AND WATER SUPPLY

**Bromyard, Heres.**—Herefordshire Water Board have approved, subject to Ministry approval, the provision of a water main from Sapey to Tenbury, during 1960/61. Estimated cost £1,600.

**Cookstown, Tyrone.**—R.D.C. are to seek Ministry grant for water and sewerage schemes to be carried out during the next five years. Estimated cost £226,000.

**Deben, Suffolk.**—Co. Water Supplies and Sewerage Committee have approved for grant aid R.D.C.'s scheme for the installation of a water softening plant at the Pettistree headworks. Estimated cost £6,900.

**Dore and Bredwardine, Heres.**—Herefordshire Water Board have approved, subject to Ministry approval, water supply scheme for Abbeydore during 1960/61. Estimated cost £10,000.

**Inverness.**—B.C. recommended to proceed with a scheme for the modernisation and improvement of Oldtown reservoir, the completion of the 24in. diameter main from Loch Duntelchaig, and the improvement of the Loch Ashie intake from Duntelchaig. Estimated cost £189,000.

**Leicester.**—Water Committee have approved schemes for a trunk main at Melton Mowbray to supply northern areas, estimated cost £15,500; to connect the villages of Medbourne to Nevill Holt and Hallaton to Horninghold, and a new main to supply Barkby Thorpe, £14,000; new mains for supplying the Hungarton-Cold Overton-Tugby-East Norton-White House area of Billesdon rural district, and Stretton Road, Great Glen, £3,990; and to improve the supply to the Higham-on-the-Hill district of Hinckley.

**Leominster and Wigmore, Heres.**—Herefordshire Water Board have approved, subject to Ministry approval, the water supply scheme for Orleton during 1960/61. Estimated cost £15,000.

**Londonderry.**—B.C. propose the construction of new waterworks for the Banagher water supply. Estimated cost £250,000. Tenders are expected to be invited shortly for the first stages.

**Maelor, Flints.**—R.D.C. to submit to Ministry for approval scheme for the provision of an improved water supply to houses at E.C. Estimated cost £46,060.

**Peterborough.**—City Council recommended to invite tenders from selected contractors for replacement of pipes at slipper baths. Estimated cost £1,000.

**Wolverhampton, Staffs.**—Water Committee have approved scheme for laying a 24in. trunk main from Goldthorn Hill Reservoir to the junction of Millfields Road and Hickman Road, Bilston. Estimated cost £106,000.

#### HARBOURS, PIERS AND SEA DEFENCE WORKS

**Smallburgh, Norfolk.**—R.D.C. to proceed with preparation of scheme for coast protection between Beach Road, Happisburgh and Ostend, Walcot. Estimated cost £289,000.

#### HEATING AND VENTILATING

**Dudley, Worcs.**—B.C. recommended to invite tenders from selected contractors for installation of new heating system at Central Police and Fire Stations.

**Evesham, Worcs.**—R.D.C. have approved scheme for provision of hot water systems and washbasins in 13 houses at Station Road, Honeybourne, and four at Evesham Road, Cookhill. Estimated cost £1,259 and £680, respectively.

**Goole, Yorks.**—West Riding E.C.'s provisional list for the new financial year includes proposal for improving the heating at Fishlake School. Estimated cost £1,000.

#### HOUSING SCHEMES

**Aldridge, Staffs.**—U.D.C. have approved sketch plans for 2 blocks of 3-storey flats at Lichfield Road, Rushall.

**Andover, Hants.**—C.C. recommended to approve scheme for the erection of a pair of semi-detached houses at the road depot. Estimated cost £5,350.

**Armagh.**—City Council propose the erection of a block of 10 flats at the corner of Primrose Hill and Navan Street.

**Ashton-in-Makerfield, Lancs.**—U.D.C. have approved the erection of 110 dwellings at Low Bank Road.

**Ashton-under-Lyne, Lancs.**—Ministry have approved the erection of 14 bungalows on Burgess Avenue, for B.C.

**Ayr.**—B.C. have approved the replacement of the 172 prefabs at Braehead by the erection of 271 houses on the same site.

**Aylesbury, Bucks.**—R.D.C. propose the erection of a block of four flats and 21

garages in the old stone pit on the Bonnersfield estate.

**Baldon, Dur.**—Matkin and Hawkins, Sunderlands Bank Chambers, Fawcett Street, Sunderland, have prepared layout plans for the erection of 112 semi-detached houses on the South Bents Estate, Whitburn, for Sir N. F. Hedworth Williamson.

**Bolton, Lancs.**—B.C. recommended to approve plans for erection of 26 semi-detached houses off Radcliffe Road, for Yates Building Co., Ltd., Radcliffe Road.

**Bridlington, Yorks.**—R.D.C. architect to prepare plans for submission to the Ministry and the East Riding C.C. for erection of 10 bungalows at Flamborough.

**Brixworth, Northants.**—Ministry have approved the demolition of Washington House, Little Brinton, and the erection of a pair of semi-detached houses on the site.

**Castlederg, Tyrone.**—R.D.C. have approved layout plans for 90 houses to be erected between Upper Strabane Road and Hospital Road.

**Chatham, Kent.**—B.C. recommended to approve draft layout plans, and invite tenders for the development of land at Nelson Terrace, comprising five bungalows, one two-storey block of 12 flats, one three-storey block of 18 flats, and car parking space.

Town Planning Committee have approved scheme for semi-detached houses at 1-18 and 76-110 Watson Avenue, Brake Avenue and Snodhurst Avenue, for Trenicorse Development Co., agents are W. E. R. Randall and Sons, 23 Railway Street, Chatham.

**Daventry, Northants.**—R.D.C. to purchase land fronting Station Road, Long Buckby, for housing purposes.

**Dorking, Surrey.**—U.D.C. propose the erection of two two-storey blocks each containing four one-bedroom flats and parking space for eight vehicles on land in the Burrell at Westcott.

**Dorking, Surrey.**—Co. Planning Committee have approved the erection of two houses, 21 flats and six maisonnettes, garages and club premises at Hampstead Road, for U.D.C.

**Dublin, E're.**—City Council propose to erect three four-storey blocks of flats (72 dwellings) on a site at the North Strand.

**Eastbourne, Sussex.**—B.C. recommended to approve revised layout scheme for the development of Bourne Street clearance area, comprising four-storey block of 24 flats and a detached three-bedroom house fronting Ashford Road.

**Eton, Bucks.**—R.D.C. plans a housing programme of 128 dwellings in the year of 1961 and early in 1962 a scheme for the redevelopment of the west side of Bells Hill and Stoke Poges.

**Finchley, Middx.**—B.C. recommended to approve plans for the erection of 90 houses and flats with 90 garages at rear of Nazareth House, East End Road, East Finchley, for Howard Farrow, Ltd., 1 Russell Parade, London, N.W.11.

**Golborne, Lancs.**—U.D.C. have approved scheme for converting 106 flats into luxury homes on Hesketh Meadow estate, Lorton. Estimated cost £70,000, including making of roads and drainage.

**Goole, Yorks.**—Ministry have approved cul-de-sac layout for 20 houses and eight bungalows at Rawcliffe Bridge, for R.D.C.

**Growtham, Lincs.**—B.C. recommended to invite Unity Structures, Ltd., to prepare layout and estimate for 60 flats at housing site 10, Earlsfield (scheme 61).

B.C. recommended to prepare plans for 124 dwellings, roads and sewers at Dysart Road, for Henry Boot and Sons (Buildings), Ltd., Burncross, Ecclesfield, Sheffield.

**Hitchin, Herts.**—R.D.C. propose the erection of 50 houses at Offley.

**Ipswich, Suffolk.**—Ministry have approved scheme for the erection of 215 flats (including a 15-storey block) in the Bramford Road area, for B.C.

**Kesteven.**—C.C. have approved the erection of 2 police houses in Queen's Walk, Stamford, £5,900.

**Kingston-upon-Thames, Surrey.**—B.C. recommended to approve in principle design for the 4-storey block of 17 maisonnettes and appoint Pennington and Partners, 21 Cedar Road, London, S.W.4, as structural engineers, for the 4-storey and 8-storey blocks in the Acre Road development scheme; proceed with development of the Bittoms site for housing purposes.

**Kirkby, Lancs.**—U.D.C. Housing Committee to proceed with scheme to erect 400 houses.

**Larne, Antrim.**—O. N. Wheeler, consultant engineer and architect, Textile Buildings, Donegal Square South, Belfast, 1, is to prepare plans for 24 houses at Greenisland for R.D.C. The Council also propose to erect 40 houses at Glenarm.

**Lewisham.**—L.C.C. approved a scheme for the erection of a two-storey block of eight



single-room flats for elderly persons at Verdant Lane and Waters Road. Estimated cost £14,000.

**Llanfyllin, Monts.**—R.D.C. to prepare, for submission to Ministry for approval, plans for the erection of 17 house units, garages and stores at Carreghofa.

**Margate, Kent.**—Town Planning Committee have approved, subject to conditions, scheme for three three-storey blocks of 18 maisonnettes with 18 garages at Queen Elizabeth Avenue, for Palm Bay Estates, Ltd., Northdown Road, Margate.

**Newry, Armagh.**—R.D.C. propose to erect 12 houses at Markethill Road, Newtownhamilton.

**Pontypool, Mon.**—U.D.C. propose the erection of 344 houses at Trevechin.

**St. Albans, Herts.**—William Old, Ltd., 433 Pinner Road, Harrow, Middx., are to erect 500 houses at St. Stephens Estate. Work has commenced on the first 42. Total estimated cost £2m.

**Sedgefield, Dur.**—G. W. Lazenby and Co., Ltd., Ferryhill, are seeking permission to erect 19 terrace houses and 18 semi-detached houses on White House estate, Tarren and Callar, architects, 24 Front Street.

**St. Marylebone.**—L.C.C. town planning permission is being sought for the following: A 21-storey block of flats at 1 Avenue Road, for Patron Investments, Ltd. (plans by Design Collaborative); 13-storey block of studio flats at 38 Abercorn Place, for Audley Properties, Ltd.

**Sheffield.**—Housing Committee have approved layout plan for the erection of 24 one-room flats for old people at Busk Meadow, off Boynton Road.

**Stoke Newington.**—L.C.C. town planning permission is being sought for a housing scheme, to include a 110ft.-high block, at 330-340 Seven Sisters Road, for Y. J. Lovell (Holdings), Ltd.

**Sutton and Cheam, Surrey.**—B.C. have approved revised scheme for the redevelopment of Benhill Avenue area, comprising the erection of 356 dwellings and provision for 89 garages and parking bays. Estimated cost £11m.

**Sutton and Cheam, Surrey.**—B.C. recommended to approve demolition of houses at 125/131a Cheam Common Road and 1/7 Woodbine Lane, Worcester Park, and erection on site of a terrace of 10 houses in two-storey blocks.

**Thetford, Norfolk.**—B.C. recommended to prepare a report on four-storey development incorporating old people's flatlets, one-bedroom flats and maisonnettes at St. Mary's Row.

**Tipton, Staffs.**—B.C. recommended to submit to Ministry and local planning authority for approval, layout of Glebefields estate.

**Tonbridge, Kent.**—R.D.C. to submit to Ministry for approval scheme for erection during 1961 of four flats at Bidborough, eight flats at Brenchley, eight flats and two houses at Capel, six houses at Lamberhurst and 18 houses at Paddock Wood.

**Uxbridge, Middx.**—B.C. to obtain a tender from Gregory Housing Ltd., 21 Farncombe Road, Worthing, Sussex, for the erection of 28 standard houses at the Leybourne Road prelab. site.

**Wisbech, I. of E.**—B.C. have approved layout for 74 dwellings and a number of garages at Sefton Avenue extension and 154 dwellings between Tinkers Drove and Walton Road.

**Withernsea, Yorks.**—U.D.C. have approved in principle plans to develop the Memorial land on the seaford. Surveyor recommended to prepare a layout to include three-storey flats.

**Wokingham, Berks.**—Blakes (Beenham), Ltd., Bath Road, Padworth, Reading, have purchased site in Blagrove Lane with planning permission for 85 houses.

**Woking, Surrey.**—Ministry have approved plans, subject to conditions, for the erection of 275 houses at Manor Farm site, Byfleet, for A. J. Wait and Co., Ltd., Wellington Crescent, New Malden.

**Worcester.**—City Council recommended to approve, subject to Ministry approval, sale of land at Tudor Way, near junction with Bromyard Road, to A. G. Baldwin, 15 Grove Crescent, Worcester, for housing purposes.

**Worthing, Sussex.**—R.D.C. to apply for sanction to borrow £9,621 for the erection of nine old people's bungalows at Allangate estate, Rustington.

**Worthing, Sussex.**—B.C. recommended to reserve land fronting Clifton Road, south of "The Jolly Brewers," for housing purposes.

Town Planning Committee have approved, subject to conditions, outline application for residential development of continuation of Plantation Way southwards, land at rear of "Tisdale" and "Greyburn Nursery," Ashacre Land, for F. L. Gamble and P. Sherston (Southern Drawing Office, agents, 120 Portland Road, Worthing); redevelopment of 60

Richmond Road, for H. C. C. Taylor (Jordan and Cook, agents, 33 South Street, Worthing). **Ystradgynlais, Brecons.**—R.D.C. to apply to Ministry for sanction to erect 40 houses.

#### PLAYING FIELDS, PARKS, ETC.

**Mitcham, Surrey.**—B.C. recommended to approve Stage 1 of scheme for the development of Oakleigh Way Recreation Ground, comprising fencing, gates, footpaths and layout of grass area on the west side of the ground. Estimated cost £3,160.

**Plymouth.**—City Council recommended to prepare scheme for the redevelopment of site at Burleigh House as games practice and athletics training area; approve scheme for planting and seeding areas at Southway estate, stage 2. Estimated cost £1,600.

**Stoke-on-Trent, Staffs.**—City Council recommended to approve garden layout at Fegg Hayes Health Centre. Estimated cost £1,730.

**Weston-super-Mare, Som.**—B.C. have approved scheme for the provision of a playing field at Bournville housing estate. Estimated cost £2,630.

#### RIVER AND FLOOD PREVENTION WORKS

**Leicester.**—City Council recommended to proceed with scheme for the prevention of flooding from Melton Brook, including laying 36in. storm water sewer along Melton Road, and construction of a pumping station. Estimated cost £300,000.

**Somerset.**—River Board to submit to C.C. for approval five year scheme to relieve flooding throughout the county. Estimated cost £3m.

#### ROADS, BRIDGES AND SITE WORKS

**Accrington, Lancs.**—B.C. recommended to approve scheme for widening a length of Burnley Road (A.679) east of Griffin Head Hotel, for submission to the M.T. Estimated cost £5,980.

**Acton, Middx.**—B.C. have approved in principle use of land as a car park at north side of The Vale.

**Ash, Kent.**—C.C. have approved scheme for the provision of a footpath on the Sandwich Road. Estimated cost £2,000.

**Basingstoke, Hants.**—B.C. recommended to invite tenders for the making-up of Darlington Road and Crossborough Hill.

**Batley, Yorks.**—B.C. to widen Commercial Street, and proceed with their development scheme.

**Selfast.**—Ministry of Commerce have approved the City Council's proposals to build new Lagan bridge. Estimated cost £2m.

**Belfast.**—City Council propose to construct a new road from Sandown Road to Clara Park. Estimated cost £16,000.

**Blackpool, Lancs.**—B.C. planning extensions and widening St. Walburgas Road, Layton, providing for a roundabout to form a direct link between Newton Drive and Poulton New Road. Estimated cost £72,300.

**Chatham, Kent.**—B.C. recommended to prepare plans for making-up part of Watson Avenue, fronting Horsted area II.

**Cheshire.**—C.C. have approved plans for the construction of a by-pass at Thelwall in the Warrington area. Estimated cost £20,000.

**Chislehurst and Sidcup, Kent.**—C.C. have submitted to M.T. for the inclusion in 1961-62 programme, schemes for widening Bexley Lane, Sidcup and Mottingham Road, from Ravensworth Road to Leysdown Road, Mottingham.

**Dagenham, Essex.**—B.C. recommended to prepare plans for making-up of passageway at rear of shops at Wood Lane.

**East Barnet, Herts.**—U.D.C. have approved schemes for the reconstruction of Camlet Way and Hadley Wood Road during 1960-61. Estimated cost £5,600 and £7,600 respectively.

**Eastbourne, Sussex.**—B.C. recommended to approve scheme for making-up Tutts Barn Lane, from Prideaux Road to Gorringer Road.

**Frome, Som.**—U.D.C. to apply for sanction to borrow £4,000 for the construction of a car park at the cattle market fronting Bridge Street.

**Gosport, Hants.**—B.C. recommended to submit to C.C. for approval schemes for the following minor improvements: Forton Road/Mumby Road—Spring Garden Lane and Clarence Road; Portsmouth Road, Lee-on-Solent (joining up road from the new Brown-down Road to Portsmouth Road); Rowner Road footpath from Rowner Lane to Nicholls Housing Estate; Foster Road; Anglesey Road/Foster Road to Green Road (footpath works); Marine Parade East, Lee-on-Solent (an asphalt footpath on the south side from Pier Street to Portsmouth Road, to be provided), and Military Road (Privett Road towards Brockhurst Road—footpaths). Estimated cost £25,176.

**Guildford, Surrey.**—B.C. recommended to approve scheme for construction of a footbridge from Park Barn to Bannisters Farm in-

cluding approach paths. Estimated cost £3,500.

**Harrow, Middx.**—B.C. have approved the widening of service roads at Uxbridge Road, Hatch End, junction of Station Road and Elm Grove Road, and outside the Granada. Estimated cost £4,500.

**Hebburn, Dur.**—U.D.C. seeking loan sanction for £49,596 for the construction of roads and sewers, etc., on the Ponds housing site.

**High Wycombe, Bucks.**—C.C. have approved an improvement scheme for the centre of High Wycombe in conjunction with the construction of an inner relief road. Estimated cost £1,750,000.

**Loftus, Yorks.**—U.D.C. to build roads and sewers at Easington, in connection with the erection of further houses.

**Londonderry.**—C.C. propose to extend the Juniper Hill Caravan Holiday Camp by a further 17 acres. Estimated cost £28,000.

**Mansfield, Notts.**—B.C. recommended to approve plans for making-up of Harley Road.

**Margate, Kent.**—B.C. recommended to approve for inclusion in 1961-62 programme, scheme for making-up unmade sections of Linden Road and Lymington Road.

**Mitcham, Surrey.**—B.C. recommended to submit to Co. Planning Committee for approval, scheme for demolition of existing bridges and construction of Bailey Bridge over River Wandle, diversion of access way at Phipps Bridge Road, near Homefield Gardens.

**Norfolk.**—Highways Committee recommended to submit to M.T. for approval and grant aid during 1961-62 schemes for by-pass for Castle Rising, £60,000; by-pass at Sculthorpe, £21,000; expansion of the Heacham By-pass northwards to Hunstanton, £45,000.

**Norwich, Norfolk.**—City Council recommended to approve scheme for demolition of buildings on site bounded by Bethel Street, St. Peter's Street and Lady's Lane and provision of car parking facilities for approximately 120 cars on the site. Estimated cost £8,075.

**Nottingham.**—City Council to proceed with scheme for the improvement of bridge over the railway near Beechdale Road, Western Boulevard. Estimated cost £22,150.

**Ossett, Yorks.**—B.C. to apply for sanction to borrow £2,667 for street works in Lime Street.

**Peterborough.**—City Council recommended to apply for sanction to borrow £3,717 for site works in connection with the provision of car parking facilities at Palace Gardens.

**Plymouth.**—City Council recommended to apply for sanction to borrow £11,050 for the construction of the eastern arm of the Plymouth Station approach; approve in principle scheme for improvement and widening of Exeter Street including the provision of a fly-over and roundabout.

**Ramsgate, Kent.**—C.C. have approved scheme for widening King Street from High Street to Broad Street. Estimated cost £63,122.

**Sheffield.**—Corporation Highways Committee have approved scheme for new by-pass of Pitsmoor Road. Estimated cost £25,000.

**Stoke-on-Trent, Staffs.**—City Council recommended to prepare plans for making-up Poplar Drive, Blunton; apply for sanction to borrow £6,700 for construction of an access road and surfacing of roads in front of existing factories at Newstead Industrial Estate.

**Surbiton, Surrey.**—Co. Planning Committee have approved scheme for provision of a car park in Church Fields, Church Lane, Chessington, for B.C.

**Twickenham, Middx.**—B.C. to proceed with plans for the widening of Whitton Road between Rugby Ground and Chase Bridge.

**West Sussex.**—C.C. have submitted to M.T. for approval first 5-year phase of a 20-year programme including A.24 Washington diversion, Muttons Rock, A.29 Bury Hill improvement, A.24 Horsham by-pass road and A.259 Bisham Corner at Clymping. Estimated cost £7,000,000.

**Worcester.**—City Council recommended to approve plans for future widening of Blackpole Road, from Bifford Road to city boundary at canal bridge, Old Northwick Lane and Hill Street, from Stanley Road to Tallow Hill.

**Worthing, Sussex.**—B.C. recommended to approve for inclusion in the 1961-62 programme, scheme for construction of Sombing Avenue extension between Beaumont Road and Dominion Road. Estimated cost £1,385.

#### SEWERAGE, SEWAGE AND REFUSE DISPOSAL

**Basingstoke, Hants.**—C.C. recommended to approve scheme for the provision of waterborne sanitation at Chiddesden County Primary School. Estimated cost £1,599.

**Bolton, Lancs.**—B.C. recommended to apply for sanction to borrow £8,000 for construction of a surface water sewer in Belmont

Road, between Bar Lane and Wilkinson Hospital.

**Bridlington, Yorks.**—B.C. recommended to approve scheme for provision of a new storm-water outfall across the beach near Limekiln Lane, a storm-water sewer in Limekiln Lane between the beach and Eighth Avenue, and a new foul sewer in Limekiln Lane between Eighth Avenue and Sewerby Road. Borough Surveyor to be instructed to prepare necessary plans, etc., for submission to the Ministry. Estimated cost between £35,000 and £40,000.

**Cheadle, Staffs.**—R.D.C. have approved scheme for connecting nine properties fronting the Leek-Weston Coyne road at Cellarhead with the existing sewer and incorporating it with the Ash Bank sewerage and sewage disposal scheme.

**Clare, Suffolk.**—R.D.C. to apply for sanction to borrow £32,000 for the Withersfield sewerage scheme.

**Daventry, Northants.**—B.C. recommended to prepare working drawings for the construction of relief and main outfall sewers to serve areas to be developed including the over-ground sewer at east side of Welton Road.

**Deben, Suffolk.**—Co. Water Supplies and Sewerage Committee have approved in principle for grant aid, R.D.C.'s sewerage scheme for Kesgrave, Rushmere St. Andrew and Martlesham. Estimated cost £357,000.

**Dudley, Worcs.**—B.C. recommended to invite tenders for the provision of sewers to serve properties at corner of Castle Street.

**Gower, Glam.**—R.D.C. have approved scheme for the Sandy Lane area.

**Mansfield, Notts.**—B.C. recommended to approve in principle scheme for provision of a gravitating sewer and surface water sewer from the Old Newark Road area to the Rainworth Sewage Disposal Works and the modernisation of the sewage disposal works; prepare scheme for the drainage of the Big Barn Lane area.

**New Romney, Kent.**—B.C. to submit to County Planning Authority for approval outline scheme for sewerage and sewage disposal works at Queens Road, Littlestone.

**Newton Abbot, Devon.**—Ministry have approved R.D.C.'s sewerage and sewage disposal scheme for Oggwell. Bills of quantities are to be prepared.

**Rainford, Lancs.**—U.D.C. have approved for submission to the Ministry, amended scheme for extensions to the Rookery sewerage works. Estimated cost £35,000.

**Upton-on-Severn, Worcs.**—R.D.C. to apply for sanction to borrow £38,400 for modernising and enlarging the sewage disposal works.

**West Kesteven, Lincs.**—C.C. recommended to approve in principle R.D.C.'s revised sewerage and sewage disposal scheme for Harlaxton. Estimated cost £48,900.

**Winchester, Hants.**—C.C. recommended to approve scheme for provision of waterborne sanitation at Itchen Abbas County Primary School. Estimated cost £1,090.

#### STREET LIGHTING

**Basingstoke, Hants.**—B.C. recommended to apply for sanction to borrow £2,700 for the installation of street lighting at South Hand housing estate (33rd and 34th installment).

**Blackpool, Lancs.**—B.C. to install new lighting scheme in Talbot Road between Larkhill Street and Gorton Street, estimated cost £2,000; to apply for sanction to borrow £24,800 for improving the lighting on the promenade, between Gynn Square and Morbreck.

**Chislehurst and Sidcup, Kent.**—U.D.C. recommended to submit to M.T. for approval in principle, scheme for street lighting improvements during 1961 to 40 roads. Estimated cost £31,600.

**Doncaster, Yorks.**—B.C. to apply for sanction to borrow £23,240 for stage four of their six-year street lighting gas conversion scheme.

**Eastbourne, Sussex.**—B.C. recommended to approve for inclusion in 1961-62 programme scheme for improvement of street lighting at Victoria Drive, Green Street and Willingdon Road, north of the roundabout. Estimated cost £5,458.

**Edinburgh.**—Works Committee propose the following in 1961-62: conversion of street lamps to electricity, estimated cost £125,000; improving the lighting in streets already lit by electricity, £50,000, and street lighting in new housing schemes, £23,000.

**Loughborough, Leics.**—B.C. recommended to submit to M.T. for grant aid, scheme for the erection of 13 group A 400-W mercury fluorescent lamps at Derby Road and 31 250-W mercury fluorescent lamps at Bishop Meadow Road. Estimated cost £840 and £1,930, respectively.

**Nottingham.**—City Council recommended to approve improved lighting schemes for Sneinton Hollows, Castle Street, Thurgarton Street, Pullman Road, Lord Nelson Street and St. Christopher Street. Estimated cost £1,110.

**Sandwich, Kent.**—B.C. recommended to approve scheme for the provision of 35ft. concrete standards with metal extensions, at Ramsgate Road, and 25ft. concrete standards at Dover Road. Estimated cost £1,581 and £1,217 respectively.

**Southall, Middx.**—B.C. recommended to approve scheme for the installation of 140 watt lamps at Tentelow Lane.

## CONTRACTS

Full details of the Contracts marked \* will be found in our Advertisement Columns.

### BUILDING AND DECORATING

(See also Housing Schemes)

**Armagh.**—Supply and fixing of metal windows, solid infill panels and louvered ventilators at R.U.C. County Headquarters, Palace Row, Armagh, for Ministry of Finance. Documents from Room 103, Law Courts Building, Belfast, 1. Tenders by Dec. 29.

**Aldershot, Hants.**—Extension of the public library building for B.C. The work comprises ground floor additions and alterations, the construction of a second storey (including lecture hall), and the provision of a new steel framework for the whole of the building. The floor area of the additions approximates to 6,300 super. ft. Documents from the Borough Engineer and Surveyor, Town Hall, Aldershot. Deposit £2 2s. Tenders by Jan. 4.

**Bedfordshire.**—Following for C.C.: (a) Biggleswade Court House, alterations and extensions, approximate cost £6,000; (b) Dunstable Police Station, alterations and extensions, approximate cost, £11,000; (c) Houghton Regis (Tite Farm estate), erection of police sub-station and pair of houses, approximate cost £8,000; (d) Leighton Buzzard, erection of new fire station, approximate cost, £15,000; (e) Leighton Buzzard, The Cedars School, extensions to provide woodwork/metalwork room, approximate cost, £8,000; (f) Stanbridge C.P. School, extensions, approximate cost, £10,000. Applications to the County Architect, Shire Hall, Bedford, by Dec. 10. Heating engineers and electrical contractors are also invited to submit their names for consideration to tender for the engineering and electrical sub-contracts in connection with the above schemes.

**Birmingham.**—General repairs, renovations, reslating and external painting at Atlas Works, Oozells Street, for City Council. Documents from the City Estates Officer, Bush House, 65 Broad Street, Birmingham, 1. Deposit £2 2s., cheques payable to Estates Department. Tenders by Dec. 21.

**Bromley, Kent.**—Construction of the following at the swimming baths, Southland Road, for B.C.: (a) New screen wall and small lavatory block; (b) new paved sun terrace at the above. Documents from the Borough Engineer, Municipal Buildings, Bromley. Tenders by Dec. 16.

**Buckinghamshire.**—Improvements to sanitary offices at Winslow C. of E. School for C.C. Applications to the County Architect, County Offices, Aylesbury. Tenders by Jan. 2.

**Canterbury, Kent.**—Erection of the first instalment of a new technical college at Barton Court for City Council. The structure will consist of a steel framed building with R.C. floors, total area approximately 60,000 super. ft. Applications to the City Architect, Municipal Buildings, Canterbury. Deposit £3 3s. Tenders by Jan. 27.

**Cheadle and Gatley, Ches.**—Internal decorations at the Town Hall, Abney, for U.D.C. Documents from the Engineer and Surveyor, Town Hall, Abney, Cheadle. Tenders by Dec. 19.

**Chesterfield, Derbys.**—Erection of a single-storey brick-built convenience block for both sexes with a total of four w.c.s at the junction of High Street and Stone Lane, New Whittington, for B.C. Documents from the office of the Borough Engineer and Surveyor, Town Hall, Chesterfield. Deposit £2 2s. Tenders by Jan. 2.

**Durham.**—Following for C.C.: Rookhope County School—adaptations; Wearhead County School—adaptations. Applications to County Architect, South Street, Durham, by Dec. 14.

**Eastbourne, Sussex.**—Erection of a home to accommodate 50 old persons plus staff, on a site adjoining Derby Court, Seaside, for B.C. Applications to the Borough Surveyor, 2 and 4 Saffrons Road, Eastbourne, by Jan. 2. Deposit £2 2s., cheques payable to Corporation. Tenders by Feb. 7.

**East Kesteven, Lincs.**—Modernisation of pre-war houses, stage 2, for R.D.C. The work includes minor structural alterations, the provision of hot water supplies and other plumbing work, and the provision of additional

electric power and lighting points. (Contract 3) 66 houses at Heckington and Great Hale; (4) 72 houses at Aunsby, Burton Pedwardine, etc.; (6) 28 houses at Cranwell, Leasingham and Wilsford. Documents from the Council's Architect, Council Offices, Northgate, Sleaford. Tenders by Dec. 14.

**East Suffolk.**—Demolition of most of the existing buildings and the erection of stores, offices, garages, etc., of some 4,800 sq. ft. for C.C. Applications to the County Architect, County Hall, Ipswich, before Dec. 20. Tenders by Jan. 20.

**Elstree, Herts.**—Erection of garages, contract 140, for R.D.C. Deposit £2 2s. Tenders by Dec. 21.

**Essex.**—Erection of the following for C.C.: (1) Essex Institute of Agriculture, Writtle, pair of staff cottages, Lawford Lane, in traditional construction, semi-detached, estimated cost £4,200; (2) Hornchurch, Umpinster branch library, reinforced concrete frame, brickwork and flat timber roof, estimated cost £35,000; (3) Mistley health services clinic; (4) Hockley health services clinic; (5) Cranham health services clinic. (3), (4) and (5) in traditional construction, estimated costs (3) £11,000, (4) £9,500, (5) £10,000. Separate applications to H. Conolly, county architect, County Hall, Chelmsford, by Dec. 10.

**Harrow, Middx.**—List of painting contractors for B.C. Apply by Dec. 16.

**Heston and Isleworth, Middx.**—Sanitary accommodation Isleworth Town Infant School for B.C. Tenders by Jan. 4.

**Holland.**—Following for C.C.: (a) Boston Grammar School, conversion of the hall into a library; (b) Boston Kitwood Girls' School, alterations and extensions to the rural science accommodation. Documents from the County Architect, County Hall, Boston, Lincs. Tenders by Dec. 31.

**Hoyland Nether, Yorks.**—Plastering to walls of existing kitchens in 100 houses at Longfields Crescent, for U.D.C. Documents from the Engineer and Surveyor, Town Hall, Hoyland. Tenders by Dec. 19.

**Isle of Ely.**—Erection of a six-storey drill and hose drying tower with ancillary single-storey buildings at Wisbech fire station for C.C. The tower construction comprises reinforced concrete foundations and floors with reinforced brick walls. The contract will require to be completed within six months of the date of commencement which it is expected will be during March, 1961. Applications to the County Architect, County Hall, March, Cambs., by Dec. 31.

**Isle of Wight.**—Erection of a health centre on the Fairway, Sandown, I. of W. (floor area approximately 2,300ft. super.), for C.C. Applications to the County Architect, County Hall, Newport, I. of W. by Dec. 16. Deposit £2 2s. Tenders by Jan. 20.

**Kesteven.**—Erection of Cranwell R.A.F. County Primary School and caretaker's house for C.C. Applications to the County Architect, County Offices, Sleaford, Lincolnshire, by Dec. 15. Tenders by Jan. 17.

**Lancashire.**—Following for C.C.: Erection of two additional craft rooms at Fleetwood Bailey Secondary School, buildings to be of traditional construction with flat felted roof, drainage, services, and finishes; erection of one police house and office with attached single garage at Chipping; alterations and external repairs to the brick-built Walkden police station. Applications to the County Architect, P.O. Box 26, County Hall, Preston, by Dec. 12.

**Leatherhead, Surrey.**—Erection of extensions (23,000 cu. ft. approximately) to the Civil Defence H.Q.s for U.D.C. Documents from the Engineers and Surveyor's Department, Red House, Leatherhead. Tenders by Dec. 12.

**Leeds.**—Erection of 80 brick built garages and one store on six sites at Moortown (two sites), Tinsill, Harehills and Gipton (two sites), Scheme 891, for City Council. Documents from the City Architect, Priestley House, Quarry Hill, Leeds, 9. Deposit £2, cheques payable to Corporation. Tenders by Jan. 2.

**Leicester.**—Alterations to housecraft and domestic science rooms at Lutterworth Secondary Modern School for C.C. Applications to County Architect, 123 London Road, Leicester, by Dec. 12. Deposit £2 2s. Tenders by Jan. 2.

**Leicester.**—Provision of sanitary accommodation at Packington C.E. School for C.C. Applications to County Architect, 123 London Road, Leicester, by Dec. 12. Deposit £2 2s. Tenders by Jan. 2.

**Leighton Buzzard, Beds.**—Improvement works to 169 pre-1939 houses, Scheme 2, for U.D.C. The work consists primarily for the provision of solid fuel hot water installations, wash bowls, and the provision complete of four bathrooms, together with appurtenant works. Documents from the Engineer and Surveyor, Council Offices, Leighton Buzzard. Deposit £2 2s. Tenders by Dec. 28.



**Letchworth, Herts.**—Construction of extensions to the bowls pavilion and groundsman's hut at the Howard Gardens for U.D.C. Documents from E. L. Johnson, Town Hall, Letchworth. Deposit £2 2s. Tenders by Dec. 16.

**Liverpool, Lancs.**—Conversions, etc., 163 Upper Parliament Street, for City Council. Documents from City Engineer and Surveyor, Municipal Buildings, Liverpool, 2. Tenders by Dec. 19.

**Liverpool.**—Conversions, etc., at the following for City Council: (a) 17 Rufford Road, Liverpool, 6; (b) 38 Kremlin Drive, Liverpool, 13. Documents from the City Engineer and Surveyor, Municipal Buildings, Liverpool, 2. Tenders by Dec. 20.

**Luton, Beds.**—Erection and completion of cleansing depot garage and central repair and maintenance depot (estimated value £225,000) for B.C. Applications to the Borough Architect, Town Hall, Luton, by Dec. 17.

**Middlesbrough, Yorks.**—Erection of tropical and sub-tropical houses, Stewart Park, for B.C., comprising the following: (1) Conservatory in hardwood and metal construction, approximately 82ft. by 44ft. by 33ft. high; (2) Aviary roof (octagonal), approximately 44ft. diameter and 22ft. high, in hardwood and metal on existing 14ft. high brickwork. Both buildings to include foundations, brickwork, floors, staging, electric lighting and power, and irrigation systems, with complete low-pressure heating suitable for tropical and sub-tropical plants. Firms would be required to submit designs based on their own specialist form of construction, and to supply and erect the buildings, together with ancillary works, as a complete scheme. Applications to J. A. Kenyon, borough engineer and surveyor, Municipal Buildings, Middlesbrough, by Dec. 14, together with the names of three persons to whom reference can be made as to their technical and financial ability. Deposit £2 2s.

**Neath, Glam.**—Garages for refuse lorries at Resolven and Seven Sisters (size 28ft. by 16ft.) for R.D.C. Documents from J. T. Jones, engineer and surveyor, 18 Orchard Street, Neath. Deposit £2 2s. Tenders by Dec. 13.

**Newcastle upon Tyne.**—Building contractors who are interested in carrying out building work for the Housing Committee on the basis of competitive tenders to submit applications by Dec. 17 to the City Architect, 18 Cloth Market, Newcastle upon Tyne, 1, in order that the Committee might consider the advisability of compiling an approved list of contractors. Firms are requested to state in their application the value of the work they would be prepared to undertake at any one time.

**Newtownabbey, Antrim.**—Construction of a factory at Carnmoney factory estate, Newtownabbey for Ministry of Commerce. Documents from the Ministry, Room 30b, Chichester House, 64 Chichester Street, Belfast, 1. Deposit £3. Tenders by Dec. 20.

**Northern Ireland.**—Following at Royal Victoria Hospital, Belfast, for Hospitals Authority: (a) Supply/fitting linoleum—new classroom, The Beeches; (b) painting exterior and interior—new classroom, The Beeches; (c) supply/fitting electric heating and lighting—new classroom, The Beeches; (d) supply/erect wood racks and table—Finance Department, B.H.M.C.; (e) erection of three garages—R.M.H.; (f) supply/laying floor covering—renewal of stone steps—Throne Hospital. Documents from Area Maintenance Department, Royal Victoria Hospital, Tenders by Dec. 13.

**Northern Ireland.**—Royal Victoria Hospital, Belfast. Proposed radio-active isotope assay room. Alterations required in basement under a ward for Hospital Authority. Documents from Donald A. Macniiven, 86 Main Street, Larne, Co. Antrim. Deposit £5, cheque. Tenders by Dec. 21.

**North Riding.**—Erection of second instalment of county primary school at Huntington, near York, for Co. E.C. Documents from F. Barraclough, County Hall, Northallerton, or W. W. Atkinson and Partners, architects, 4 Raymond Buildings, Gray's Inn, London, W.C.1. Plans seen at the County Hall, Northallerton. Tenders by Jan. 2.

**Norwich.**—Erection of an abattoir at Harford for City Council. Documents from the City Architect's Office, City Hall, Norwich, Nor. 01A. Tenders by Jan. 6.

**Ossett, Yorks.**—Internal redecorating of the council chamber, two offices and lobby in the Town Hall for B.C. Documents from the Borough Surveyor's Office, Town Hall, Ossett. Tenders by Dec. 17.

**Oundle, Northants.**—Improvements at 6 Ashton Road, for U.D.C. The works comprise the provision of bathroom and W.C. in new lean-to outbuildings and ancillary drainage work. Documents from R. E. T. Chinnery, engineer and surveyor, 6 North Street, Oundle. Tenders by Dec. 19.

**\*Rawtenstall, Lancs.**—New greenhouses for B.C. Deposit £2 2s. Tenders by Jan. 9.

**Rotherham, Yorks.**—Alterations to 66 houses at Treeton for R.D.C., consisting of the provision of internal and external bathrooms, new hot water service, new fireplaces, drains, water services and repairs to flues and chimneys. Documents from Taylor, Knight and Company, architects, Brooksmoor House, Grove Road, Moorgate, Rotherham. Deposit £2 2s. Tenders by Dec. 21.

**Smethwick, Staffs.**—Internal and external repairs to Cape Junior School for B.C. Written applications to the Borough Engineer and Surveyor, Council House, Smethwick. Deposit £2 2s. (cheque payable to the Borough Treasurer). Tenders by Jan. 2.

**Southport, Lancs.**—Erection of lairages at the abattoir, Poplar Street, for B.C. Structures are of brick and concrete construction. Documents from the Borough Architect and Town Planning Officer's Department, 99/105 Lord Street, Southport. Deposit £1 ls. Tenders by Jan. 10.

**Stretford, Lancs.**—Building work required in completing portions of corridors on the second floor of the Town Hall for B.C. Documents from A. H. Perry, borough engineer and surveyor, Town Hall, Stretford. Deposit £2 2s. Tenders by Dec. 19.

**Tadcaster, Yorks.**—Erection of four garages, internal size 16ft. 3in. by 8ft. at Barley Horn Road, Ulleskelf, for R.D.C. Documents from the Engineer and Surveyor, Council Offices, Tadcaster. Deposit £1. Tenders by Dec. 24.

**Tyrone.**—Installation of flush closets and ancillary works, provision of cloakroom, etc., at Crossdennott Primary School for C.C. Documents from the Chief Education Officer, Education Offices, Omagh. Tenders by Dec. 19.

**West Riding.**—Following works for C.C.: (1) Construction and fencing of new playground at Saddleworth Denshaw C.E. (Aided) School; (2) proposed adaptations at Saddleworth Library. Documents from the office of the Divisional Architect, Flint Street, Huddersfield. Tenders by Jan. 9.

**West Riding.**—Pre-painting repairs at the following schools for C.C.: Springhead County, Doctor Lane C.E., Dobcross C.E., Greenfield County, Greenfield C.E. Documents from A. Beardsell, 35 Kirkgate, Huddersfield. Tenders by Dec. 21.

**West Sussex.**—Following for C.C.: (a) One classroom extension at East Wittering Primary School, near Chichester (job 6329); (b) extensions to Horsham Trafalgar Road Infants' School (job 6309). Applications to the County Architect, County Hall, Chichester, by Dec. 12.

**Wokingham, Berks.**—Alterations to Bucks Copse depot for B.C. Documents from the Borough Surveyor, Town Hall, Wokingham. Tenders by Dec. 18.

**Worcestershire.**—Erection of the second stage of the College of Further Education in Hoo Road, Kidderminster, for Co. E.C. The work comprises a seven-storey block in reinforced concrete containing general teaching accommodation, single-storey assembly hall, lecture room and student's common room and extensions to the existing single-storey barrel vaulted workshops and some modifications to existing accommodation. Applications to Frederick Gibberd, architect, 8 Percy Street, London, W.1, by Dec. 12. Plans also seen at the Office of the County Architect, 14 Castle Street, Worcester.

**\*Wortley, Yorks.**—Construction of refuse collection depot for R.D.C. Deposit £5. Tenders by Jan. 20.

#### CLOTHING AND TEXTILES

**Ashton-under-Lyne, Lancs.**—Supply of the following for the various departments of the B.C.: (1) Uniform clothing, (2) protective clothing. Documents from G. A. Malone, town clerk, Town Hall, Ashton-under-Lyne. Tenders by Jan. 2.

**Bedfordshire.**—Supply of ambulance service uniform for the year 1961-62 for C.C. Documents obtained on receipt of a stamped addressed brief envelope from W. C. V. Brothwood, county medical officer, Health Department, Phoenix Chambers, High Street, Bedford. Tenders by Jan. 7.

**Birkenhead, Ches.**—Supply of uniforms; waterproof clothing; caps and helmets; leather and cotton gloves; shirts, collars, ties; leather leggings; and women's stockings, for members of the police force during the year ending March 31, 1962, for B.C. Documents from the Chief Constable, Police Headquarters, Chester Street, Birkenhead. Tenders by Jan. 2.

**Chesterfield, Derbys.**—Supply of protective clothing for cleansing department employees for B.C. Documents from the Cleansing Superintendent, 103 Sheffield Road, Chesterfield. Tenders by Dec. 31.

**Rochdale, Lancs.**—Supply of uniform clothing including shirts, ties, socks, shoes, etc. Documents from Chief Fire Officer, Fire Station, Rochdale. Tenders by Dec. 30.

#### DEMOLITION

**Hatfield, Herts.**—Demolition of a terrace of eight cottages at Batterdale, for R.D.C. Documents from W. J. Davis, engineer and surveyor, North Place, 82 Great North Road, Hatfield. Tenders by Jan. 2.

**Roxburghshire.**—Demolition of Teindsdale old bridge approximately seven miles south of Hawick for C.C. The work consists of the complete demolition of a masonry bridge consisting of two arches, 31ft. and 42ft. spans, giving an overall length of 141ft., and approximately 18ft. overall width; the removal of all stone and debris from the site. Documents from the County Surveyor and Engineer, County Offices, Newtown St. Boswells. Tenders by Dec. 9.

**\*Stroud, Glos.**—Demolition and clearance work for U.D.C. Tenders by Dec. 17.

**Swansea.**—Demolition and clearance of Bracelet Bay Camp, Mumbles, for B.C. Documents from the Borough Estate Agent, Guildhall, Swansea. Deposit £2. Tenders by Dec. 16.

#### ELECTRICAL

**Blackpool, Lancs.**—Electrical installation at Hodder Works, Slaidburn, for Fylde Water Board. Documents from Engineer to the Fylde Water Board, Sefton Street, Blackpool. Tenders by Dec. 19.

**Braintree and Bocking, Essex.**—Internal electrical wiring of 22 existing houses for U.D.C. Documents from the Engineer and Surveyor, Town Hall, Braintree. Deposit £1 ls. Tenders by Dec. 16.

**Llanfyllin, Monts.**—Electrical installation in new offices for R.D.C. Documents from Glyn Jones, clerk, Rural District Council Offices, Llanfyllin. Tenders by Dec. 31.

**Montgomeryshire.**—Electrical installation at the following premises for C.C.: Bettws School and canteen; Llanbrynmair School and canteen and head teacher's house (Llwynffynon); Bont School and canteen and head teacher's house (Aelybryn). Documents from J. A. Davies, director of education, Education Offices, Newtown. Tenders by Dec. 16.

**\*Newcastle upon Tyne.**—Installation of two lifts for City Council. Tenders by Jan. 17.

**Stoke-on-Trent, Staffs.**—Electrical installations at combined conveniences Stone Road, Trent Vale, for City Council. Written applications to the City Architect, Kingsway, Stoke-on-Trent, by Dec. 13. Deposit £2 Tenders by Jan. 11.

#### FENCING

**\*Romford, Essex.**—Chain link fencing works for B.C. Deposit £2 2s. Tenders by Dec. 20.

#### GAS AND WATER SUPPLY

**Cork, Eire.**—Supply and delivery f.o.r. Freemount, Co. Cork, and erection of equipment for the chemical dosing, rapid gravity filtration and sterilisation of the Allow Regional Water Supply for C.C. Documents from M. C. O'Sullivan, consulting engineer, of H. N. Walsh and Partners, 47 Sunday's Well, Cork. Deposit £2 2s. Tenders by Jan. 13.

**\*Leeds.**—Thruscross impounding reservoir scheme for City Council. Deposit £10 10s. Tenders by Jan. 31.

**Macclesfield, Ches.**—Kettleshulme water supply for R.D.C., including the following works: (Contract 1) Laying of approximately 1,500yd. of 4in. diameter asbestos-cement water main from a newly constructed break pressure tank at Sester Bridge, Kettleshulme, to connect up to the council existing water mains in Kettleshulme Village; (2) the construction of a 2,700-gallon break pressure tank at Sester Bridge, the construction of a small concrete weir in Sponds Adit, an existing underground stream, and the laying of approximately 70yd. of 4in. diameter main between the dam and break pressure tank. Documents from the Engineer and Surveyor, Council Offices, King Edward Street, Macclesfield. Deposit £2 each. Tenders by Jan. 6.

**Oswestry, Salop.**—Works of water supply, south-eastern area, stage 2, contract 5, for R.D.C., including the construction of about 47,200 lin. yd. of asbestos-cement water mains, varying in diameter from 3in. to 8in., two reinforced concrete service reservoirs, and incidental works. Documents from Dillwyn T. David, clerk of Council, Castle View, Dillwyn T. David, clerk of the Council, Oswestry, or A. H. S. Waters and Partners, engineers, 25 Temple Row, Birmingham, 2. Deposit £5 5s. Tenders by Jan. 6.

**Portrush, Antrim.**—Division of approximately 150 lin. yd. of 3in diameter pipe



watermain at Brookvale Terrace, for U.D.C. Documents from the Town Surveyor, Dunluce Street, Portrush. Tenders by Dec. 28.

**\*Salisbury and Wilton, Wils.**—Wylve Valley water supply for R.D.C. Tenders by Dec. 20.

**Staffordshire.**—Proposed new field water supply on Holding 125 Stone Aston Scheme, Aston, near Stone, for C.C. Applications to the County Estate Agent, County Buildings, Martin Street, Stafford. Tenders by Dec. 14.

**Staffordshire.**—Tittesworth reservoir scheme, contract 45, 27in. diameter main, for Potteries Water Board, consisting of the laying of approximately 5,600 lin. yd. of 27in. nominal diameter steel bitumen-lined and sheathed water main with Viking Johnson couplings, from Ladderedge reservoir, near Leek, to Stockton Brook. Two separate tenders are required: (1) Tender with variations in wages and materials; (2) tender on fixed-price basis without variations in wages and materials. Documents from C. V. Brown, engineer and manager and clerk to the Board, Engineer and Manager's Office, Albion Street, Hanley, Stoke-on-Trent. Deposit £5 5s. (cheque). Tenders by Jan. 9.

**Warrington, Lancs.**—Risley pumping station, contract 6, for B.C., including the construction of a pump house with cavity brick walls and slated roof. Documents from the Water Engineer, Pinners Brow Warrington. Tenders by Dec. 13.

**Watford, Herts.**—Annual contract—main-laying during the year ending March 31, 1962, for B.C. Documents from J. R. Collins, borough water engineer and manager, Water Department, Town Hall, Watford. Tenders by Jan. 5.

**\*Zetland.**—Walls and district water scheme for C.C. Site inspection Dec. 14. Deposit £5 5s. Tenders by Jan. 12.

#### HEATING AND VENTILATING

**Blackpool, Lancs.**—Design, supply and fixing of ventilation ductwork, fan and plant, etc., in the proposed underground conveniences under the promenade for B.C. Documents from the borough surveyor, Arthur Hamilton, Municipal Offices, Blackpool. Deposit £1. Tenders by Jan. 12.

**Luton, Beds.**—Heating installation, Central Depot, for B.C. Documents from Borough Architect, Town Hall, Luton. Tenders by Jan. 9.

**Montgomeryshire.**—Installation of hot water supply, bathroom and w.c. at Mellington Schoolhouse, near Churchstoke, for C.C. Documents from J. A. Davies, director of education, County Offices, Newtown. Tenders by Dec. 19.

**Omagh, Tyrone.**—Installation of L.P.H.W. heating, hot, cold and drinking water services at new post office for Ministry of Finance. Documents from Room 103, Law Courts Building, Belfast, 1. Tenders by Jan. 2.

**Stoke-on-Trent, Staffs.**—Following for City Council: Jackfield C.P. School—heating installation to K.D.R.; St. Augustine's R.C. School—heating installation to K.D.R. Written applications to the City Architect, Kingsway, Stoke-on-Trent, by Dec. 13. Deposit £2 each. Tenders by Jan. 6.

#### HOUSING SCHEMES

**Barnstaple, Devon.**—Erection of three one-bedroom bungalows at Highfield Gardens, Combe Martin, together with certain site works for R.D.C. Documents from C. D. Square, housing manager, Council Offices, Castle Street, Barnstaple. Deposit £2 2s. Tenders by Dec. 22.

**Brecknock.**—Erection of six houses on the Coedwaungar Sennybridge site for R.D.C. Applications to Merton Jones and Richards, architects, St. Mary's Chambers, Abergavenny, by Dec. 16.

**\*Bridgend, Glam.**—Flats at Brackla North housing site for U.D.C. Deposit £3 3s. Tenders by Dec. 31.

**Castleford, Yorks.**—Erection and completion of 78 dwellings in nine three-storey blocks, complete with external works, drainage and services at Whitwood Mere housing estate, contract 158, for B.C. Documents from the office of the Borough Engineer and Surveyor, Town Hall, Castleford. Deposit £2 2s. Tenders by Dec. 22.

**Chorley, Lancs.**—Erection of 18 aged persons' bungalows at Eccleston, near Chorley, to gether with roadworks, for R.D.C. Documents from the offices of the Surveyor, Council Offices, Gillibrand Street, Chorley. Deposit £2 2s., cheques payable to R.D.C. Tenders by Jan. 9.

**Halesworth, Suffolk.**—Erection of five bungalows on a slum clearance site in Chediston Street, and the tender will also include for the demolition of the existing properties on the site known as 7 to 14 Chediston Street (inclusive) for U.D.C. Applications to R. Woodhouse Beales, archi-

tect, 3 Neale Street, Ipswich, Suffolk, by Dec. 10. Tenders by Dec. 28.

**Harpenden, Herts.**—Erection of six flats for old people at Breadcroft Lane, Harpenden, for U.D.C. The flats will adjoin an existing group of 14 flats and will be served by the same central heating boiler. Applications to Frederick A. Harris, clerk of the council, Harpenden Hall, Harpenden, by Dec. 16. Deposit £1 1s.

**Hatfield, Herts.**—Erection of 30 dwellings at School Lane, Essendon, for R.D.C. Documents from W. J. Davis, engineer and surveyor, North Place, 82 Great North Road, Hatfield. Deposit £5 5s. Tenders by Jan. 9.

**\*Hayes and Harlington, Middx.**—Two hundred and twenty-seven dwellings at Frogmore Far estate for U.D.C. Apply by noon, Jan. 2.

**Hoyland Nether, Yorks.**—Six 2 bedroom type bungalows, six 1 bedroom type bungalows and eight 2 bedroom type houses together with external services at Skiers View Road for U.D.C. Documents from the Engineer and Surveyor, Town Hall, Hoyland. Tenders by Jan. 3.

**Huddersfield, Yorks.**—Erection of a detached dwelling-house in Claremont Street for B.C. Documents from the Borough Architect's Office, High Street Buildings, Huddersfield. Deposit £1 1s. Tenders by Dec. 20.

**Inverness.**—Mason, carpenter, slater and roughcast, glazier, plumber and drainage, plaster and electrical works for four blocks of semi-detached houses in Kessock area, and two blocks of similar houses in Dalneigh area for B.C. Documents from the Borough Architect, 11 High Street, Inverness. Tenders by Dec. 15.

**Isle of Wight.**—Erecting (without quantities) a pair of police houses at Belmead Lane, Newport, for C.C. Applications to the County Architect, County Hall, Newport, I. of W. by Dec. 16. Deposit £2 2s. Tenders by Jan. 16.

**Kingsbridge, Devon.**—Erection of six bungalows, together with drainage and outside works at South Milton for R.D.C. Applications to J. H. Savidge, clerk, The Manor House, Kingsbridge, by Dec. 12. Deposit £2 2s., cheque.

**\*Middlesbrough, Yorks.**—Erection of three groups of dwellings for B.C. Tenders by Jan. 9.

**Morpeth, Northumb.**—Erection of 89 houses and bungalows at Syelvit Lane housing estate for B.C. Documents from the office of the Borough Surveyor, 36 Bridge Street, Morpeth. Deposit £2. Tenders by Jan. 23.

**Portsmouth.**—Erection of 17 flats, Wingfield Street, for City Council. Applications to the City Architect, 1 Western Parade, Portsmouth, by Dec. 12. Deposit £1.

**Royston, Herts.**—Erection of 76 dwellings on the Doles Estate, for U.D.C. Documents from the Surveyor, Council Offices, Station Road, Royston. Deposit £2 2s. Tenders by Dec. 19.

**St. Helens, Lancs.**—Erection and completion of 105 housing units, contract 2161, at Burrons Lane site, Eccleston, for B.C., consisting of seven four-storey blocks of traditional construction, each block containing 12 maisonnettes and three flats. Documents from M. Ward, borough engineer and surveyor, Town Hall, St. Helens. Deposit £2 2s. Plans seen at the Architectural Office, 5 Cotham Street, St. Helens. Tenders by Dec. 16.

**South Cambridgeshire.**—Construction of two houses and four bungalows at Whittlesford, for R.D.C. Documents from the Council's Architect and Surveyor, County Hall, Hobson Street, Cambridge. Deposit £2 2s. Tenders by Dec. 20.

**Sowerby Bridge, Yorks.**—Erection of 38 aged persons' bungalows, warden's bungalow, and meeting room at Bairstow Lane, including one pair of bungalows at Throstle Mount, Luddenden Foot, for U.D.C. Documents from the Engineer and Surveyor's Office, Beech Road, Sowerby Bridge. Deposit £2 2s. Tenders by Dec. 19.

**\*West Keveston, Lincs.**—Erection of 20 dwellings for R.D.C. Deposit £2 2s. Tenders by Dec. 30.

**West Riding.**—Erection of a caretaker's bungalow at Bentley Kirkby Avenue Infants' School for C.C. Documents from the office of the County Architect, Bishopgarth, Westfield Road, Wakefield. Tenders by Jan. 2.

#### MATERIALS AND SUPPLIES

**Bath.**—Contracts and supplies, April 1, 1961, to March, 1962, for City Council. (See our issue of Dec. 1, page 1173.) Tenders by Jan. 7.

**\*Bedfordshire.**—Supply of materials for Co. E.C. Apply by Dec. 17.

**Belper, Derbys.**—Supply and delivery of the following materials for the year ending Mar. 31, 1962, for U.D.C.: Slag chippings; tarred limestone; cold asphalt; granite and limestone

chippings; gravel; refined tar; precast slabs, kerbs and edgings; precast chippings (slag/granite); coal. Documents from the Surveyor, Council Offices, King Street, Belper. Tenders by Dec. 31.

**Bermondsey.**—Supply of the following for the period of 12 months commencing April 1, 1961, for B.C.: Asphalt reinstatement of trenches; ballast, sand, shingle, etc.; bituminous emulsion; boots; brooms and brushes; clearance of rubbish and hardcore; cold asphalt; disposal of surplus broken paving; dry-mix mortar; electric lamps; newspapers and periodicals; pails, dustbins, etc.; patent paving, etc.; sharpening masons' tools; uniforms. Documents from the Town Clerk, Municipal Offices, Spa Road, S.E.16. Tenders by Jan. 16.

**Brentford and Chiswick, Middx.**—Supply of following materials, etc., for twelve months commencing Apr. 1, 1961, for B.C.: (1) Aggregate sands and gritting sands; (2) bulk commercial motor spirit, diesel oil, paraffin and fuel oil; (3) cement; (4) drysaltery—(a) paints and buildings accessories, (b) paint brushes and brooms, (c) sanitary paper; (5) ironmongery (including manhole covers and gully grates); (6) motor lorry hire; (7) precast concrete flags; (8) stationery, etc.; (9) uniforms; (10) coal, coke and smokeless fuel. Documents from Town Clerk, Town Hall, Chiswick, W.4. Tenders by Jan. 6.

**Bristol.**—Supply of glass for glazing for twelve months, commencing Jan. 1, 1961, for City Council. Documents from Housing Dept., Council House, Bristol 1. Tenders by Dec. 19.

**\*Camborne—Redruth, Corn.**—Materials and services for U.D.C. Tenders by Jan. 28.

**Derby.**—Supply of following stores for the year ending Feb. 28, 1962, for B.C.: Lubricating oils and greases; motor spirit, fuel oils, etc.; electric lamps, batteries, etc.; electric cables and accessories; plan printing materials; maintenance of public clocks, time recorders, etc.; supply and maintenance of typewriters. Documents from M. L. Francis, borough engineer and surveyor, Council House, Derby. Tenders by Dec. 16.

**Devonshire.**—Following for C.C.: Hire of heavy excavating plant; supply and/or application of road tar, tar bitumen compounds and emulsified bitumen; supply of roadstone, tarmacadam and asphalt; hire of Barber-Greene road surfacing machines; heating and planing; supply and laying of white line material; ready-mixed concrete; cotton waste; rolling and scarifying; haulage of materials; hire of tipping lorries. Documents from H. G. Godsall, clerk, The Castle, Exeter. Tenders by Jan. 6.

**\*Durham.**—Annual contracts for C.C. Tenders by Jan. 6.

**Flintshire.**—Supply of materials and services for the year ending March 31, 1962, for C.C. (See our issue of Dec. 1, page 1172.) Tenders by Jan. 16.

**\*Harrow, Middx.**—Annual contracts, 1961-62, for B.C. Tenders by Dec. 21.

**\*Hertfordshire.**—Supply of materials for C.C. Tenders by Jan. 9.

**\*Ilkerton, Derbys.**—Supply of road materials, etc., for B.C. Tenders by Jan. 13.

**\*Kingston-upon-Thames, Surrey.**—Supply of fuel oil for Hogsmill Valley Joint Sewerage Board. Tenders by Jan. 1.

**Maidenhead, Berks.**—Supply of the following materials or services for the year ending March 31, 1962, for B.C.: Tarmacadam, tar paving; tar, tar compounds and bitumen; sand, gravel, shingle and concrete aggregate; precast concrete kerbs, channels, paving slabs, etc.; broken granite; cast-iron goods; hire of transport; gang mowing, etc. parks and open spaces. Documents from C. T. Read, borough engineer and surveyor, 14 Craufurd Rise, Maidenhead. Tenders by Jan. 13.

**\*Middlesbrough, Yorks.**—Supply of traffic signs for B.C. Tenders by Dec. 13.

**Orpington, Kent.**—Following for the year commencing April 1, 1961, for U.D.C.: (1) Supply of concrete paving slabs, kerbs, etc.; (2) laying only of paving slabs and kerbs; (3) supplying and laying of cold asphalt; (4) supplying and laying of tar coated granite; (5) traffic signs, posts and street nameplates; (6) lubricating oils and greases; (7) sand and ballast; (8) cold emulsion; (9) petrol and diesel oil; (10) rock salt for snow clearance (11) hire of plant and equipment; (12) manhole covers and frames. Applications, accompanied by a stamped addressed envelope to L. W. Freeman, engineer and surveyor, Civic Offices, The Walnuts, High Street, Orpington. Tenders by Dec. 30.

**Peterborough.**—Supply and delivery of materials and services during the year ending March 31, 1962, for C.C. (See our issue of Dec. 1, page 1172.) Tenders by Jan. 14.

**Radcliffe, Lancs.**—Supply and delivery of the following for the period ending March 31, 1962, for B.C.: (1) Portland cement; (2) salt; (3) granite chippings; (4) concrete flags; (5) concrete edging; (6) natural stone kerb; (7)

bituminous macadam and wetmix; (8) paints; (9) lubricating oils, petrol, etc.; (10) brush refills for mechanical sweeper; (11) tyres; (12) ready mixed concrete. Written applications to the Borough Engineer and Surveyor, Town Hall, Radcliffe. Tenders by Jan. 24.

**Rutland.**—Supply of the following for the year ending March 31, 1962, for C.C.: (1) Crushed granite slag, limestone and pitching; (2) washed and crushed gravel; (3) tar-macadam and dense tar surfacing; (4) bitumen macadam and dense bitumen surfacing; (5) supplying and laying by Barber-Greene machine items (3) and (4); (6) bituminous emulsions; (7) supply and application only of tar and/or bitumen for surface dressing; (8) furnace ashes; (9) truck mixed concrete; (10) the laying of plastic white lines; (11) the laying of reflecting road studs; (12) hire of mechanical haulage; (13) hire of road rollers; (14) heating and planing; (15) the laying of concrete haunchings; (16) the laying of pre-cast concrete kerbs; (17) the laying of pre-cast concrete paving flags. Forms of tender for items 1, 2, 3, 4, 5, 7, 9, 12, 14, 15, 16 and 17 only on application to the County Surveyor, County Offices, Oakham. No forms of tender are issued in respect of items 6, 8, 10, 11 and 13. Tenders by Jan. 7.

**St. Albans, Herts.**—Annual tenders, 1961-62, for City Council: (1) Granite aggregate paving slabs; (2) distemper (Walpamur) and ceiling white (Millbrand); (3) shingle for surface dressing; (4) cement lime and plaster; (5) iron castings; (6) tarmacadam (slag) and cold asphalt; (7) shingle and sand for frost-bound roads; (8) coarse all-in aggregate and sand; (9) kerbs and setts; (10) granite chippings; (11) lubricating oils and greases; (12) protective clothing; (13) road salt for snow clearing; (14) concrete channel blocks and edging; (15) slag chips for surface dressing; (16) coke. Documents from the City Engineer and Surveyor's Office, 16 St. Peter's Street, St. Albans. Tenders by Jan. 4.

**Salford, Lancs.**—Supply of the following during the 12 months ending March 31, 1962, for City transport: (a) Petrol, paraffin, fuel oil, lubricants, white lead, linseed oil, turpentine, terebinth, brake linings, rope yarn waste, cotton wipers; (b) uniform clothing (including waterproof clothing); (c) vehicle livery paints. Written applications to the General Manager and Engineer, Salford City Transport, Frederick Road, Salford, 6. Tenders by Jan. 4.

**Sevenoaks, Kent.**—Supply of the following during the year ending March 31, 1962, for U.D.C.: Slag tarmacadam and slag dust; bituminous macadam (with crushed rock or slag aggregate); tarmacadam other than slag tarmacadam; fine cold asphalt and coarse cold asphalt; refined tar; cement; sand; granite chippings; granite concrete kerb (hydraulically pressed); granite concrete paving slabs (hydraulically pressed); crushed and natural shingle; lorry hire; salt for snow clearance purposes. Documents from the Engineer and Surveyor, Council Offices, Argyle Road, Sevenoaks. Tenders by Jan. 2.

**Swindon, Wilts.**—Following for the year Jan. 1, to Dec. 31, 1961, for B.C.: (1a) Hire of contractors' plant, e.g., excavators, tractors, etc., (1b) hire of lorries on a daywork basis; (2) supply only or supply and delivery of—(1) ballast, sand and aggregates; (2) bricks; (3) manhole covers and frames, gully grates and frames; (4) salt-glazed ware pipes; (5) pre-cast concrete pipes, concrete manholes and gully pots; (6) precast concrete blocks, channel blocks, kerbs, path edging and paving slabs; (7) tarmacadam, bituminous macadam, cold asphalt and rolled asphalt; (8) coated and uncoated chippings; (9) tar and bitumen; (10) cement; (11) agricultural pipes and porous concrete pipes; (12) electrical goods (lamps, cable, etc.); (13) water fittings (polythene pipes, etc.); (14) glass; (15) timber, hardboard, etc.; (16) wire nails, etc. Documents from the Borough Engineer, Civic Offices, Swindon. Tenders by Dec. 13.

**\*Wiltshire.**—Road materials for C.C. Tenders by Dec. 30.

**\*Wimbledon.**—Supply of materials for B.C. Tenders by Jan. 26.

#### PLANT AND MECHANICAL TRANSPORT

**\*Dorking and Hurley, Surrey.**—Supply of refuse vehicle for R.D.C. Tenders by Dec. 19.

**Londonderry.**—Supply and delivery of a refuse collection vehicle to be fitted with an all steel 18 cu. yd. rear loading body, of the type which tips in forward and rear positions. The controls other than the control determining the forward and rearward tip to be situated in the cab adjacent to the driver's seat. The vehicle to be primed, painted two undercoats and one finishing coat to selected colours, and lettered "Londonderry Rural District Council" on both sides. The vehicle should be completed and ready for the road and supplied with number plate, tax disc, two mirrors, hydraulic jack and complete kit of tools. The engine to be a two-stroke diesel

underfloor type, and to be positioned in the chassis in such a way as to cause as little obstruction as possible to the driver and occupants of the cab. The tyre equipment to be 7.50 x 20 x 10 ply. The tender price should include delivery to Londonderry and the vehicle should comply in all respects with the provision of the Road Traffic Acts and P.S.V. regulations. Alternative prices to be submitted for the supply of the complete unit to the above specification, giving the price for single cab to accommodate driver and two helpers, and double crew cab to accommodate driver and six helpers. Tenders in envelopes endorsed "Refuse Collection Vehicle" to W. A. McCahan, clerk to the Council, Council Offices, Glendernmott Road, Londonderry, by 4 p.m. Dec. 13.

**Newtownabbey.**—Supply of the following for U.D.C.: (a) Heavy-duty road sweeper; (b) 15cwt. dumper; (c) bowling green equipment. Documents from the Surveyor, Town Hall, Newtownabbey. Tenders by Dec. 14.

**Ramsey, Hunts.**—Supply of one of the following makes of industrial tractor, together with a trailer and other equipment for U.D.C.: International Harvester, Massey-Ferguson, Nuffield Universal. Documents from the Surveyor, Council Offices, 3 Bury Road, Ramsey. Tenders by Dec. 31.

**\*Sowerby Bridge, Yorks.**—Supply of a loading shovel for U.D.C. Tenders by Dec. 12.

**Tynemouth.**—Supply of one side-loading refuse collection vehicle for B.C. Documents from the Director of Public Cleansing, Cleansing and Transport Department, 101 Norfolk Street, North Shields. Tenders by Dec. 28.

#### PLAYING FIELDS, PARKS, ETC.

**Ballymena, Antrim.**—Construction of a children's playground, shelter, lavatories, etc., at the People's Park, Ballymoney Road, for B.C. Documents from the Office of the Town Clerk, Town Hall, Ballymena. Deposit £2. Tenders by Dec. 15.

**\*Bristol.**—Reconstruction of tennis courts for City Council. Tenders by Jan. 3.

**\*Carshalton, Surrey.**—Reconstruction of non-attention hard tennis courts for U.D.C. Tenders by Dec. 19.

**Down.**—Formation of playing fields at Banbridge Intermediate School for Co. E.C. Documents from the Office of the Education Committee, 7 Brunswick Street, Belfast 2. Deposit £5 5s. Tenders by Dec. 21.

**\*Mildenhall, Suffolk.**—Construction of new cemetery for R.D.C. Tenders by Jan. 20.

**\*Romford, Essex.**—Construction of six hard tennis courts for B.C. Deposit £2 2s. Tenders by Dec. 20.

**Saddleworth, Yorks.**—Supply and delivery of the following playground equipment for U.D.C.: Four sets of six swings, each 8ft. high, with tubular frames; four safety slides, 24ft. long, complete with tubular frame and handrails. Delivered to the Council Depot, Uppermill, near Oldham, as required. Tenders, in plain sealed envelopes, to the Clerk of the Council, Council Offices, Uppermill, near Oldham, endorsed "Playground Equipment," by first post Dec. 17.

**Stockport, Ches.**—First stage development (major levelling) at Brinnington Park, for B.C. Area of P.F. approximately 7 acres, involving the excavation and movement of approximately 18,000 cu. yd. of earth. Documents from Parks Superintendent, Woodbank Hall, Woodbank Park, Stockport. Tenders by Jan. 7.

**Tenterden, Kent.**—Conversion of the existing grass tennis courts to hard courts in the East Cross recreation ground for B.C. Documents from R. J. Nichols, borough surveyor, Town Hall, Tenterden. Deposit £2 2s. Tenders by Dec. 15.

#### RIVER AND FLOOD PREVENTION WORKS

**Kingston-upon-Thames, Surrey.**—River bank protection works at Queen's Promenade for B.C., involving handling, pitching and driving 39,000 sq. ft. steel sheet piling, casting 650 lin. yd. of reinforced concrete capping beam, and other ancillary works. Documents from Borough Surveyor, Guildhall, Kingston-upon-Thames. Deposit £2 2s. Tenders by Dec. 15.

#### ROADS, BRIDGES AND SITE WORKS

**Antrim.**—Following works during the year ending Mar. 31, 1962, for C.C.: (a) Resurfacing and surface spraying on classified and unclassified roads; (b) repairs to sea pavements; (c) horsework. Documents from County Surveyor's Office, County Courthouse, Crumlin Road, Belfast, 14. Tenders by Dec. 23.

**\*Basildon, Essex.**—Private street works for U.D.C. Apply by Dec. 16.

**Bebington, Ches.**—Construction of approximately 340 lin. yd. of pitched and macadam carriageway and flagged footpaths in Vernon Avenue and Redvers Avenue for B.C. Docu-

ments from the Borough Engineer and Surveyor, Town Hall, Bebington. Deposit £2 2s. Tenders by Dec. 16.

**\*Bilston, Staffs.**—Construction of road off Loxdale Street, contract 238, for B.C. Deposit £2 2s. Tenders by Dec. 14.

**\*Buckinghamshire.**—Slough-Maidenhead By-pass, Contract 2, for C.C. Deposit £50. Tenders by Feb. 7.

**\*Burnley, Lancs.**—Parker Lane, Croft Street improvement for B.C. Deposit £1 1s. Tenders by Jan. 6.

**\*Cardiff.**—Soil survey, London-Fishguard trunk road—Cardiff Inner By-pass for City Council. Deposit £2 2s. Tenders by Dec. 30.

**\*Carlisle, Cumb.**—Road and sewers for City Council. Tenders by Dec. 19.

**Cheltenham, Glos.**—Construction of approximately 460 sq. yd. of slabbed footpath and ancillary works at Arie Road for B.C. Documents from W. E. C. Bird, borough engineer, Municipal Offices, Cheltenham. Deposit £2 2s. Tenders by Dec. 19.

**Cheltenham, Glos.**—Resurfacing of approximately 260 sq. yd. of carriageway and the reconstruction of approximately 90 sq. yd. of footpath together with kerbing, channelling and ancillary works at Workhouse Lane for B.C. Documents from W. E. C. Bird, borough engineer, Municipal Offices, Cheltenham. Deposit £2 2s. Tenders by Dec. 19.

**\*Cheshire.**—Birmingham-Preston motorway, Contract 2, for C.C. Deposit £50. Tenders by Feb. 20.

**\*Clacton, Essex.**—Roadworks at Marlowe Road, Jaywick, for U.D.C. Deposit £2 2s. Tenders by Jan. 10.

**Coleraine, Londonderry.**—Reconstruction of Portstewart Road, for B.C. The contract includes for some 7,500 cu. yd. of excavation to carriageways and footpaths, some 6,500 cu. yd. of imported infilling to embankments, the laying of some 540 lin. yd. of storm sewer varying in diameter from 15in. to 6in., the laying and connecting of 52 gullies, the re-laying of 340 lin. yd. of 6in. diameter and 70 lin. yd. of 8in. diameter water main, and 160 lin. yd. of 8in. diameter and 450 lin. yd. of 6in. diameter gas main, the pitching, blinding and surfacing of 10,000 sq. yd. of bituminous macadam carriageway and 4,200 sq. yd. of flagged footpath, the construction of a reinforced concrete box culvert 12ft. x 7ft. x 70ft. long, the laying of 1,700 lin. yd. of 6in. x 12in. precast concrete kerbs, together with all necessary ancillary works. Documents from the Borough Surveyor, 54 Stone Row, Coleraine. Deposit £5 5s. Tenders by Dec. 31.

**Doncaster, Yorks.**—Following site development works at Rands Lane Estate extension, Armthorpe, contract 364, for R.D.C.: (1) Laying of a total of 519 yards of 6in. and 9in. dia. soil sewers; (2) laying of a total of 601 yards of 9in. dia. surface water sewers; (3) construction of 5,748 sq. yd. of crusher run stone carriageway foundation, 1,671 lin. yd. of concrete kerb bed, together with appurtenant site works. Documents from the Surveyor, Council Offices, Nether Hall, Doncaster. Tenders by Dec. 16.

**Down.**—Reconstruction and reshaping of carriageways and footpaths on route B25 (The Square) and route C329 (Bridge Street) in the village of Rostrevor for C.C. Documents from the County Surveyor, County Surveyor's Office, English Street, Downpatrick. Tenders by Dec. 20.

**\*Dudley, Wores.**—Hockley Lane improvement for B.C. Apply by Dec. 10. Deposit £5 5s.

**Exeter.**—Reconstruction of High Street between Messrs. Curry's premises and Eastgate for City Council, comprising approximately 3,740 sq. yd. of reinforced concrete dual carriageway, 855 lin. yd. of kerbing, 1,780 sq. yd. of flagged footway, and ancillary works. Documents from John Brierley, city engineer and surveyor, Municipal Offices, 7 Southernhay West, Exeter. Deposit £2 2s. Tenders by Dec. 17.

**Fife.**—Realignment of routes A.921 and B.941 at Balcarres Mill, 3-mile east of Colinsburgh, comprising construction of carriageways approximately 600ft. and grass verges together with the provision of surface water drainage and fencing for C.C. Documents from the County Surveyor, County Offices, Belfield, Cupar, Fife. Deposit £2 2s. cheque. Tenders by Dec. 28.

**Glasgow.**—Reconstruction of the two bridges carrying Edmiston Drive over railway lines in the section of Edmiston Drive between Helen Street and Broomloan Road for City Council. Contract 1—Reconstruction of the bridge over the Govan branch line. The work involves the complete demolition of the existing bridge (40ft. 0in. between parapets) and the construction of a new bridge (80ft. 0in. between parapets, 31ft. 11in. maximum span) of reinforced concrete abutments on precast concrete piled foundations, mass concrete wing walls, a deck of rolled steel joists encased in concrete, and parapet walls, etc. Contract 2—Widening of the bridge over the Princes







## AWARDS

## BUILDING AND DECORATING

(See also Housing Schemes.)

College Gardens, Belfast, 9. Deposit £5 5s. Tenders by Dec. 21.

**Middlesex.**—East Middlesex main drainage, contract EMR.3, for C.C., comprising construction of the following buildings at Ramsey Marsh sludge disposal works, near Enfield Lock, Middlesex: (1) Pumping station superstructure 78ft. by 50ft., maximum height 19ft.; (2) office building 69ft. by 23ft. by 10ft. high; (3) garage and other single-storey buildings totalling about 1,750 sq. ft. Documents from J. D. and D. M. Watson, consulting engineers, 67 Tufton Street, Westminster, S.W.1. Deposit £10 10s. Tenders by Jan. 2.

**Northern Ireland.**—Proposed sewer extension at Holywell Hospital for Hospitals Authority, comprising the laying of approximately 990 yards of 6in. diameter earthenware pipe, and 360 yards of 9in. diameter earthenware pipe, together with manholes and other incidental works relating to the scheme. Documents from the offices of W. D. R. and R. T. Taggart, consulting engineers, 13 College Gardens, Belfast, 9. Deposit £5 5s. Tenders by Dec. 21.

**Paignton, Devon.**—Main drainage contract 1 for U.D.C.: Supply and delivery of pipes: 67 lin. yd. 66in. turned and bored cast-iron pipes; 440 lin. yd. 66in. spun-concrete pressure pipes with special joints; 2,940 lin. yd. 60in., 54in., 45in., 36in. and 33in. spun-concrete pressure pipes with special joints; 1,530 lin. yd. 36in., 33in., 30in., 27in., 24in., 18in., 15in. and 12in. spun-concrete pipes with ordinary joints; taper pipes, junctions and specials. Documents from the Engineer and Surveyor, Municipal Offices, Oldway, Paignton. Tenders by Jan. 5.

**Poole, Dorset.**—Reconstruction and surface water drainage at Park Road, for B.C., length of street 210yd. Documents from the Borough Engineer, Municipal Offices, Poole. Deposit £2 2s. Tenders by Dec. 13.

**Rowley Regis, Staffs.**—Culverting of Elm Terrace and Poplar Avenue brookcourses for B.C., comprising the laying of approximately 320 lin. yd. of 21in. diameter and 70 lin. yd. of 15in. diameter concrete pipes, together with all ancillary works, and including the cleansing and re-grading of approximately 150 lin. yd. of existing stream. Documents from the office of S. G. Wood, borough engineer and surveyor, Municipal Buildings, Old Hill, Staffs. Deposit £2 2s. Tenders by Dec. 19.

**Watford, Herts.**—Nascol Wood sewerage scheme, stage II, for B.C. Deposit £2 2s. Tenders by Jan. 9.

**West Riding.**—Provision, construction and maintenance of a sewage treatment works and a sewage rising main at Bretton Hall Training College, West Bretton, near Barnsley, for C.C. Applications to John H. Haiste and Partners, Belmont House, 20 Wood Lane, Headingley, Leeds, 6. Deposit £3 3s. Tenders by Jan. 2.

## STREET LIGHTING

**Baldock, Herts.**—Supply and erection of 11 25ft. concrete columns with 140-W sodium lanterns and auxiliary equipment for U.D.C. Documents from the Engineer and Surveyor, Council Offices, Baldock. Deposit £2 2s. Tenders by Jan. 7.

**Dunbartonshire.**—Proposed street lighting Searf 5 area, Cumbernauld New Town, for C.C., including the erection and wiring only of 35 fluorescent street and footpath lighting points. The lanterns and columns necessary for the contract will be supplied by the County Council. Applications to William Arthur, county lighting superintendent, 24 George Square, Glasgow, C.2, by Dec. 16.

**Dunbartonshire.**—Proposed street lighting Muirhead 4 area, Cumbernauld New Town, for C.C., including the erection and wiring only of 88 fluorescent street and footpath lighting points. The lanterns and columns necessary for the contract will be supplied by the County Council. Applications to William Arthur, county lighting superintendent, 24 George Square, Glasgow, C.2, by Dec. 16.

**Manchester.**—Road and car park lighting for City Council. Tenders by Jan. 3.

## INTERNATIONAL CONTRACTS

**Australia.**—Avon-south coast water supply, contract 3473-W, for Metropolitan Water, Sewerage and Drainage Board, New South Wales. Manufacture supply, testing, delivery and initial maintenance of six 24in. diameter, two 18in. diameter, one 12in. diameter, 32 8in. diameter and 20 6in. diameter manually operated stop valves. Documents from the Agent-General for New South Wales, 56 Strand, London, W.C.2. Tenders by Dec. 20 in Australia.

**Alton, Hants.**—Stage 11a of alterations, additions, etc., at the Lord Mayor Treloar Hospital for the Wessex Regional Hospital Board—Downer and Bailey, Ltd., Longclose, Downton, Lymington, £25,581 (recommended).

**Basingstoke, Hants.**—Provision of: (a) A chest clinic, and (b) additional clinic accommodation at Basingstoke Hospital for the Wessex Regional Hospital Board—(a) Terrapin, Ltd., Haddon House, Fitzroy Street, London, W.1, £1,547, and (b) G. W. Oliver and Sons, Ltd., Flaxfield Road, Basingstoke, £1,428 (recommended).

**Bedlington, Northumb.**—Erection of new Council offices for the U.D.C. A. K. Dennis, surveyor—Direct Labour.

**Bethnal Green.**—Construction of 30 garages and other works at Collingwood estate for L.C.C.—O. H. Groves and Co., Ltd., 112 Ewart Road, London, S.E.23, £9,080.

**Billingham-on-Tees, Dur.**—Erection of public-house at Cowpen Bewlay for J. W. Cameron and Co., Ltd., E. M. Lawson, architect, Barras Buildings, Barras Bridge, Newcastle upon Tyne—Snowdon Bros., Duke Street, Darlington.

**Birmingham.**—Erection of industrial premises on a site fronting Smith Street for W. H. Darby and Sons, Ltd.—Thornbury Bros. and Gumbley, Queens Head Road, Handsworth, Birmingham, 21.

**Bishop Auckland, Dur.**—Erection of community centre in Atcost construction for the St. Helen's Auckland Tindale Crescent Community Association—D. V. Roper (Bishop Auckland), Ltd., Bondgate, Bishop Auckland, £9,000.

**Blaydon, Dur.**—Erection of garage, workshops, offices and showroom at Chain Bridge Road for Murray and Charleton, Ltd., R. Turley and Associates, architects, 46 Jesmond Road, Newcastle upon Tyne—George Bainbridge, Ltd., 205 Westgate Road, Newcastle upon Tyne.

**Bolton, Lancs.**—Erection of additional toilets/cloakrooms at Tonge Fold Infants' School for B.C.—W. Lionel Gray (1933), Ltd., Hospital Buildings, Darley, Farnworth (recommended).

**Bournemouth, Hants.**—Conversion to maternity unit, Firs Hospital, for the Wessex Regional Hospital Board—Jenkins and Sons, Ltd., 43 Holdenhurst Road, Bournemouth, £28,978 (recommended).

**Boldon, Dur.**—Erection of licensed premises to be known as the Boldon Lad for Scottish Brewers, Ltd., Page, Son and Hill, architects, 75 King Street, South Shields—J. H. Fisher and Co., Ltd., Lansdowne Terrace, Gosforth, Newcastle upon Tyne. Work started on foundations.

**Britwell, Bucks.**—Erection of the new Britwell Methodist Church on the corner of Wentworth Avenue and Ansculf Road for the Trustees of the Britwell Methodist Church—Wm. Hartley and Sons, Ltd., Wexham, Slough, £14,050. Paul Mauger, Gavin, Mathers and Mitchell, architects, 25 Marylebone Road, London, N.W.1, and C. E. Ball and Partners, quantity surveyors, 36-38 Fitzroy Square, London, W.1. Work commenced.

**Bromley, Kent.**—Following for B.C.: External and internal decoration at Westleigh, Chislehurst Road and Hollydene, Beckenham Lane—Stotesbury and Kidson, Ltd., 37 Park Road, Bromley, £694 and £1,713, respectively; replacement of ceilings at Princes Plain County Schools—W. H. Willson and Co. (Builders), Ltd., 125 Masons Hill, Bromley, £904.

**Carlisle, Cumb.**—Erection of a vehicle workshop, Hadrians Camp, for War Department—John Laing and Son, Ltd., Dalston Road, Carlisle.

**Chelmsford, Essex.**—Erection of the Church of the Ascension at Maltese Crescent for Parochial Church Council—F. J. French, Coval Works, Cedar Avenue, Chelmsford, estimated cost £15,000. Laurence King, architect, 9 Gower Street, London, W.C.1, and L. C. Roberts, quantity surveyor, 92 Avenue Chambers, Vernon Place, Southampton Row, London, W.C.1.

**Chichester, Sussex.**—Erection of Chichester estival Theatre at Oaklands Park—Sir Robert McAlpine, 80 Park Lane, London, W.1, estimated cost £85,000. Work to commence next May.

**Cricklade and Wootton Bassett, Wilts.**—Improvements to 20 Council houses at Ashton Keynes and Lyneham for R.D.C., including provision of new bathrooms and w.c.s, drainage and hot water systems. J. C. Grindley, engineer and surveyor—Floyd Agar and Co., Ltd., Church Street, Sherston, Malmesbury, Wilts., £15,790.

**Daventry, Northants.**—Erection of a block of six concrete garages at Manor Road, Woodford Halse, for R.D.C.—Haynes (Daventry), Ltd., High Street, Daventry, £1,104.

**Derby.**—Extensions at the Derby Diocesan Training College for the Council of Education—J. H. Fryer, Ltd., Great Northern Road, Derby, estimated cost £350,000. Charles Pike and Partners, architects, 14 Lincoln's Inn Fields, London, W.C.2; Selby and Sanders, quantity surveyors—Caxton House, Tothill Street, London, S.W.1; and Laurence Oliver, electrical and mechanical engineering consultant, 57 Victoria Street, London, S.W.1. Work just commenced.

**Dudley, Worcs.**—Erection of 81 garages at Saltwells estate for B.C.—Builders (Coseley), Ltd., Ivy House Lane, Coseley, Staffs., £18,608 (recommended, subject to Ministry approval).

**East Sussex.**—Construction of college house and physics block for the University College of Sussex at Stanmer—James Longley and Co., Ltd., Joinery Works, Crawley, estimated cost £265,000 and £275,000, respectively. Sir Basil Spence and Partners, 1 Canonbury Place, London, N.1, are the architects; Reynolds and Young, 329 High Holborn, London, W.C.1, are the quantity surveyors, and Ove Arup and Partners, 13 Fitzroy Street, London, W.1, are the consulting engineers. Work has just commenced.

**Finsbury.**—Extension of the drill-yard, erection of a drill tower and other works at Clerkenwell fire station for L.C.C.—Rowley Bros., Ltd., Tower Works, Dunloe Avenue, London, N.17, £39,195 (accepted); A. T. Rowley (London), Ltd., £41,684; The Demolition and Construction Co., Ltd., £42,394; Kirk and Kirk, Ltd., £42,573; Poolman (Builders), Ltd., £42,838; Rush and Tompkins, Ltd., £43,356; Thomas and Edge, Ltd., £43,578; E. J. Lacey and Co., Ltd., £43,973; J. L. Kier and Co., Ltd., £47,168.

**Haltwhistle, Northumb.**—Factory additions for Smith and Walton, Ltd.—Benson and Dixon, Fairhill, Haltwhistle.

**Harrogate, Yorks.**—Extension of premises in Parliament Street/Oxford Street for Busbys (Bradford), Ltd.—Higgs and Hill, Ltd., Leeds. George Baines and Sybrom, architects, 121 Victoria Street, Westminster, London, S.W.1; L. A. Francis and Sons, quantity surveyors, Vernon House, Sicilian Avenue, London, W.1, and R. H. Thomason, 121 Victoria Street, S.W.1 is the structural engineer. Estimated cost £160,000.

**Hebburn, Dur.**—Works extension, Prince Consort Road for George Angus and Co., Ltd., R. Bowey and Son, Ltd., William Street, Gosforth, Newcastle upon Tyne.

**Herefordshire.**—Erection of a health clinic at Hereford for C.C.—Hiles and Mussell, Yranarg, Holme Lacy Road, Hereford, £28,577.

**Heston and Isleworth, Middx.**—Construction of the following for B.C.: Stage II of the Cranford Branch Library, comprising juvenile section, reading room and reference room—S. T. Mace, Ltd., 142a Bath Road, Hounslow, £7,970; stage II of the Works and Building Maintenance Central Depot at Bridge Road—Modern Homes (Development), Ltd., 54 Argyle Street, London, W.C.1, £62,088 (recommended).

**Hull.**—Reconditioning of Hull's No. 2 fish-market for British Transport Commission—A Monk and Co., Ltd., Padgate, Warrington, £100,000. Work to commence soon.

**Islington.**—Erection of a new building at Highgate Hill nursery school for L.C.—Poolman (Builders), Ltd., Sutherland Works, Edgware Road, London, N.W.9, £22,764.

**Ipswich, Suffolk.**—Construction of two sugar silos and elevator tower at Sproughton, near Ipswich, for the British Sugar Corporation—John Laing and Son, Ltd., Mill Hill, London, N.W.7.

**Lambeth.**—Alterations at Stuart Primary School for L.C.C.—R. J. Adams, Ltd., 11 Finsbury Square, London, E.C.2, £11,967.

**Leicester.**—Alterations and extensions to premises at 7 High Street for Lloyds Bank, Ltd.—John Laing and Son, Ltd., Mill Hill, London, N.W.7.

**Leicester.**—Alterations and improvements to main kitchen at Hillcrest for City Council—Walter Potter and Sons, Ltd., Grasmere Street, Leicester, £7,543 (recommended).

**Letchworth, Herts.**—Erection of seven shop units, with two-storey offices above, on the Arena site, The Broadway, for the First Garden City, Ltd.—Leslie and Co., Ltd., Peel Street, Kensington, London, W.8, estimated cost £60,000. E. H. Davie of Hillier, Parker, May and Rowden, architects, 77 Grosvenor Street, London, W.1; and Lay and Partners, quantity surveyors, 7 Wimpole Street, London, W.1. Work to commence at once.

**Leyland, Lancs.**—Supply and erection of 14 enclosed-type bus shelters on various sites throughout the urban district for U.D.C. F. D. Howe, engineer and surveyor—Blakeley (Sheffield), Ltd., Hope, near Sheffield, £2,387. Work commencing this month.

**London.**—Repair and redecoration of exterior, etc., of 7-8 Milk Street and 14-15 Mumford Court, for City Corporation—Mullen and Lumsden (Maintenance), Ltd., 5 Coptic Street, London, W.C.1, £2,608 (recommended); P. Eustace and Son, Ltd., £2,850; Ashford and Moll, Ltd., £3,170; Anderson and Brown (Bishopsgate), Ltd.; £3,497; Woodward and Co. (Finsbury), Ltd., £3,730.

**Longbenton, Northumb.**—Office extensions for the Ministry of Pensions and National Insurance—John Jackson and Sons (Builders), Ltd., 72 Corporation Street, Newcastle upon Tyne.

**Luton, Beds.**—First phase of the Luton and Dunstable Hospital extensions for the North West Metropolitan Regional Hospital Board, comprising the erection of a five-storey block and casualty centre—William Willett, Ltd., Sloane Square, London, S.W.1, £498,939. F. A. C. Maunders, board's architect and J. Galloway, board's engineer; Ross, Barker and Wallace, consulting engineers, 67 West Nile Street, Glasgow, C.1; Young and Brown, quantity surveyors, Roman House, London Wall, London, E.C.2; C. J. Pell and Sons, consultant structural engineers, 4 Manchester Square, London, W.1.

**Maesteg, Glam.**—General repairs to 158 houses at Park housing estate for U.D.C. Lewis W. Jones, engineer and surveyor—T. R. Williams, 167 Park Street, Bridgend, Glam., £10,082 (accepted); W. S. Edwards, £15,271; Lambert and Thomas, £17,812.

**Newcastle upon Tyne.**—Erection of new Church of the English Martyrs in Stamford Road. D. Brown, architect, 10 Lambton Road, Newcastle upon Tyne—Gordon Durham Co., East Boldon, Co. Durham.

Alterations and additions to St. Aloysius R.C. School, Lewis Drive. D. Brown, architect, 10 Lambton Road, Newcastle—Tate and Holmes, Benwell, Newcastle upon Tyne.

**Newport, Mon.**—Office block in Laingspan construction at Spencer Works, Llanwern, for Richard Thomas and Baldwins, Ltd.—John Laing and Son, Ltd., Mill Hill, London, N.W.7.

**Northfleet, Kent.**—Civil engineering work and construction of tank bases at Grove Road, for Shell-Mex and B.P., Ltd.—John Laing and Son, Ltd., Mill Hill, London, N.W.7.

**Norwich, Norfolk.**—Nine garages at Hearts-ease estate for City Council—Ford and Carter, Ltd., Baltic House, Mountergate, Norwich (recommended, extension of contract). Estimated cost £1,208.

**Nottingham.**—Following for City Council: Extension and improvement of the crematorium at South Cemetery—Richardson and Cooney, Ltd., 5 Byron Street, Sneinton Road, Nottingham, £27,898; construction of a new kiosk on The Forest—W. H. Herries, Ltd., Colwick, Nottingham, £2,146; provision of a temporary branch library at Bakersfields—Vic Hallam, Ltd., Valley Works, Langley Mill, Notts, £3,143 (recommended).

**Ormskirk, Lancs.**—Erection of Edge Hill Teachers' Training College for C.C.—John Laing and Son, Ltd., Dalston Road, Carlisle.

**Oxford.**—Piling work for the new St. Catherine's College at Holywell Great Meadow for Oxford University. Prof. Arne Jacobsen, architect, in association with Philip Dowson, 1 Pembroke Studios, Pembroke Gardens, London, W.8—Cementation Co., Ltd., 20 Albert Embankment, London, S.E.11. Main contract not yet let.

**Oxford.**—Following for City Council: Erection of 24 garages and laying of bases at Cumberland Road—Bell and Webster (Contracts), Ltd., Essex Road, Hoddesdon, Herts., £1,536, and Ameys Asphalt Co., Ltd., Sutton Courtenay, Abingdon, Berks., £2,397, respectively; supply and erection of superstructure for four temporary classrooms for infants at Horspath Road estate—Swiftplan, Ltd., 39 Victoria Street, London, S.W.1, £9,075; extension at Rose Hill Community Centre—A. J. Sadler and Co., Ltd., Vicarage Farm Cottage, Chesterton, B'cester, £1,763; provision of a pavilion at New Marston recreation ground—W. H. Dore and Sons, Ltd., Meadow Lane, Shipton-under-Wychwood, Oxford, £3,400 (recommended).

**Penrith, Cumb.**—Additions to Newton Rigg Farm School, for C.C.—R. E. Reay and Son (Penrith), Ltd., Great Dockray, Penrith.

**Plymouth.**—Following for City Council: Erection of a factory at Burrington industrial estate for Cluett Peabody and Co., Ltd.—Staverton Contractors, Ltd., 24 Lockyer Street, Plymouth, £38,711; maternity and child welfare clinic at Stonehouse—A. N. Cole (Contractors), Ltd., Sutton Road, Plymouth, £22,090 (recommended).

**Poplar.**—Major repairs and improvements at Fordway Primary School for L.C.C.—Yates (Bow), Ltd., 27a Fairfoot Road, London, E.3, £7,891.

**Portsmouth.**—Upgrading of kitchens at St. James Hospital for the Wessex Regional Hospital Board—Direct Labour, £3,000 (recommended).

**Ruislip, Middx.**—Erection of three-storey office block at Cavendish Avenue for British European Airways—Holland & Hannen and Cubitts (Great Britain), Ltd., 1 Queen Anne's Gate, London, S.W.1, £280,000. Covell and Matthews, architects, 34 Sackville Street, London, W.1; W. S. Atkins and Partners, consulting engineers, Wilton Road, London, S.W.1, and Leslie A. Keats and Partners, quantity surveyors, 14 Fitzroy Street, London, W.1.

**St. Pancras.**—Improvements to kitchen and dining accommodation at Brecknock Primary and Secondary Schools for L.C.C.—Frank R. Freeman, Ltd., 13 Chapel Street, London, N.W.1, £13,853.

**South Shields, Dur.**—Extension to premises in Wapping Street for Durham Sheet Metal Works—Direct Labour, £3,950.

**Sunderland, Dur.**—Alterations to warehouse for Associated Portland Cement Manufacturing Co.—John Laing and Son, Ltd., Dalson Road, Carlisle.

**Tonbridge, Kent.**—Erection of warehouse and office buildings at Paddock Wood, for Rowntree and Co., Ltd.—John Laing and Son, Ltd., Mill Hill, London, N.W.7.

**Tunbridge Wells, Kent.**—Erection of car showrooms with three flats over, offices, stores and repair workshop at 39 St. Johns Road, for E. J. Baker and Co. (Dorking), Ltd.—E. H. Cummins and Co., Ltd., Station Road, Dorking, Surrey. Estimated cost £50,000. Cecil Burns and Guthrie, architects, 11 Calverley Park, Tunbridge Wells, and Drower and Son, quantity surveyors, 28 Victoria Street, London, S.W.1.

**West Bromwich, Staffs.**—Following for City Council: Alterations to existing housing department accommodation at Lombard Street West and construction of new wall to car park area behind Manor House building—Direct Labour. Estimated cost £2,350 and £1,600, respectively.

Supply and erection of garden sheds—John Webb (Wall), Ltd., 100 Dudley Street, West Bromwich (recommended). Estimated cost £5,000.

**Whitehaven, Cumb.**—Erection of The Lion public-house for Matthew Brown and Co., Ltd.—Thomas Armstrong, Ltd., South Street, Cockermouth. L. Normington, chief architect, in collaboration with A. Hopkinson and Son, architects, 30 Crompton Street, Bury; C. E. Blyth, 23a Lord Street, Rochdale, is the quantity surveyor.

**Wigan, Cumb.**—Erection of laboratory for the British Rayophone, Ltd.—John Laing and Son, Ltd., Dalston Road, Carlisle.

**Wiltshire.**—Extensions to South Wiltshire Grammar School, Salisbury, for E.C.—James and Crockerell, Ltd., Durrington, Salisbury, £127,802 (recommended, subject to M.E. approval).

**Wigan, Lancs.**—Alterations to store in Station Road for Oxleys Department Store, Ltd.—Bilow Contractors, Ltd., 18 Millgate, Wigan; interior decorators—W. J. Gibson, Huyton, Liverpool, 7; heating engineers—T. Gaskell and Co., Ltd., 55 Library Street, Wigan; N. H. Cheetham and Partners, 7 Library Street, Wigan, are the architects.

**Winchester, Hants.**—Construction of a classroom block at the Royal Hampshire County Hospital for the Wessex Regional Hospital Board—Hampshire Contractors, Ltd., Winnall Close, Winnall, Winchester, £3,275 (recommended).

**Woodstock, Oxon.**—Erection of a block of seven garages at Cockpit Close, Rectory Lane, for B.C. Harry W. Smith and Son, architects, 29 George Street, Oxford. P. J. Austin, 20 Cadogan Park, Woodstock, £1,251 (accepted); C. Pether and Sons, Ltd., £1,921; A. Hobley and Sons, Ltd., £1,842; W. Townsend and Sons, £1,574.

**Woolwich.**—Provision of internal sanitary accommodation, a central hot-water supply and other minor improvements, including the conversion of the existing heating apparatus to oil firing at Woodhill Primary School for L.C.C.—Hotson Bros., Ltd., 37 Balaham Park Road, London, S.E.12, £28,969 (accepted); Harrison and Spooner,

Ltd., £29,119; W. J. Eaglen, Ltd., £30,765.

**Worthing, Sussex.**—Erection of public conveniences at Brooklands off Western Road for B.C.—Snewin and Son, Ltd., 41 Warwick Street, Worthing, £2,184 (recommended).

**Wrexham, Denbighs.**—Erection of a new St. Marks Church at Bryneglwys, Queens Park estate. L. W. Barnard and Partners, architects, 13 Imperial Square, Cheltenham, Glos.—Alun Edwards, Ltd., Cefn-y-Bedd, Wrexham, estimated cost £28,000. Work to commence early next year.

## DEMOLITION

**Bolton, Lancs.**—Demolition of outside lavatories at Morris Green St. Bede's C.E. Infants' School for B.C.—F. Pardon, Ltd., Bolton (recommended).

**Chester.**—Demolition of properties required for the Pepper Street improvement scheme for City Council—North West Demolition Co., 111 Gigg Lane, Bury, Lancs., £1,892 (recommended).

**Dagenham, Essex.**—Demolition of 54-60 Crown Street for B.C. A. R. Wright and Sons, Ltd., 18a Coopers Lane, London, E.10, £75 (recommended).

**Kingston-upon-Thames, Surrey.**—Demolition of 84-84a Eden Street, for B.C.—R. C. Young, Riverscroft, Chertsey Road, Shepperton, Middx., £284 (recommended).

**London.**—Demolition of properties at Fort and Steward Streets, adjoining Spitalfields Market, for City Corporation—A. Slowgrove, Ltd., £1,850 (recommended); St. Mary's (Contractors), Ltd., £2,080; Gorst and Co., Ltd., £2,222; Willmet Bros., Ltd., £2,475.

**Nottingham.**—Demolition of the following for City Council: 24 Hucknall Road; community centre at Hucknall Road; 1, 3, 5 and 6 Knox Street and 11 and 13 Jenner Street, Carrington area, contract 2—J. Watts and Sons (Contractors), Ltd., Porchester Road, Thorneywood, Nottingham, £530; former P.E.S.A. buildings, Abbey Street, Dunkirk, and 16-18 Ossington Street with garage adjoining and 1 and 3 Ossington Street—Dygor Contractors, Ltd., North Street, Ilkeston, Derby, £297 and £138, respectively (recommended).

## ELECTRICAL

**Alton, Hants.**—Electrical works for stage 11a of alterations, additions, etc., at the Lord Mayor Treloar Hospital for the Wessex Regional Hospital Board—R. F. Webb, Ltd., 8 Rockstone Place, Southampton, £2,325 (recommended).

**Bolton, Lancs.**—Provision of an electric passenger lift at Laburnum Lodge for B.C.—William Wadsworth and Sons, Ltd., High Street, Bolton (recommended).

**Bournemouth, Hants.**—Electrical works for the conversion to maternity unit at Firs Hospital for the Wessex Regional Hospital Board—E. W. Forster and Co., 686 Wimborne Road, Winton, Bournemouth, £5,308 (recommended).

**Heston and Isleworth, Middx.**—Re-wiring where necessary, and the installation of two power points in 92 houses on the Worple estate for B.C.—Hughes Electrical, Ltd., 8 St. John's Road, St. John's, Woking, Surrey, £1,669 (recommended).

**Leicester.**—Erection of a new electricity sub-station at Archdeacon Lane for City Council—J. Walker and Son, 9 Westview Avenue, Blaby, Leicester, £1,279 (recommended).

**Norwich.**—Lighting and rewiring the provision market for the Markets Committee—Mann Egerton and Co., Ltd., 37 Surrey Street, Norwich, £2,610.

**Portsmouth.**—Electrical services at St. James Hospital for the Wessex Regional Hospital Board—G. E. Taylor (London), Ltd., Gloucester Street, Portsmouth, £1,983 (recommended).

**Salisbury, Wilts.**—Electrical works for alterations to operating theatres at the General Infirmary for the Wessex Regional Hospital Board—R. F. Webb, Ltd., 8 Rockstone Place, Southampton, £858 (recommended).

**Southwark.**—Supply and installation of three electric passenger lifts in the new London School of Printing and Graphic Arts for L.C.C.—The Express Lift Co., Ltd., Northampton, £40,945 (accepted); Otis Elevator Co., Ltd., £50,663.

**Winchester, Hants.**—Electrical and engineering work for classroom block at the Royal Hampshire County Hospital for the Wessex Regional Hospital Board—Direct Labour, £790 (recommended).

## FENCING

**Kirkburton, Yorks.**—Supply and erection of plastic-covered chain link fencing, concrete posts and steel work gates at various sites for U.D.C. I. E. Mercer, engineer and



surveyor—Darlington Fencing Co., Darfen Works, Carr Hill, Doncaster, £937.

**Nottingham.**—Provision and erection of chain link fencing between houses at Nut-hall Road and New Guildford Secondary School for City Council—Darlington Fencing Co., Ltd., Darfen Works, P.O. Box 4, Carr Hill, Doncaster, £483 (recommended).

**Southall, Middx.**—Renewal of wire mesh to railings at station bridge and chain link fencing work for B.C.—Tubular Barriers, Ltd., 10 Palace Chambers, Bridge Street, London, S.W.1, £1,152, and L. J. Pinnegar and Co., Ltd., Thorney Lane, Iver, Bucks., £694, respectively (recommended).

#### GAS AND WATER SUPPLY

**Bicester, Oxon.**—Laying of approximately 6,900 lin. yd. of 9 in. spun-iron water main and fittings in land along a route from Upper Heyford to Bicester, through the parishes of Ardley and Bucknell in the Ploughley R.D.C. area for U.D.C. Gerald Carline, surveyor—Martin Mullen and Co., 59 Green Street, Stourbridge, Wores., £21,769. Work to commence Jan.

**Breconshire.**—Connecting up of consumers in the Colwyn district for the Builth and District Water Board—T. A. Rogers and Son, Woodhall, Tremont Road, Llandrindod Wells, Radnors, £6,078 (provisionally accepted).

**Bromley, Kent.**—Laying water main and service pipe at Norman Park for B.C.—James Cooper (Construction), Ltd., 28 Kensington Church Street, London, W.8, £1,519.

**Cornwall.**—Drift water scheme, contract 5, Leha and Cryor reservoirs, for West Cornwall Water Board, comprising the construction of two concrete service reservoirs with capacities of 500,000 gallons and 150,000 gallons on sites in West Cornwall. Herbert Lapworth and Partners, consulting engineers, 25 Victoria Street, London, S.W.1—Richard Costain (Construction), Ltd., 4 Princess Place, Plymouth, £38,963 (accepted); E. Thomas and Co., Ltd., £39,485; Hendersons (Contractors), Ltd., £51,417.

**Haverfordwest, Pems.**—Ford - Woodmoor water extension, Treffgarne, for R.D.C., including the provision and laying of approximately 2,200 yd. of 1½ in. water main, with valves, fittings, and other appurtenant works. A. J. Davies, surveyor and engineer—Jones and Gravell, Bryn Gwyn, Four Roads, Kidwelly, Carms., £2,352; M.L.M. Contractors, £2,401; T. R. Morris, £2,591; General Contractors, Ltd., £2,620; Dudley

Boswell, Ltd., £2,621; D. C. Evans and Co., £2,655; Dan Evans, £2,727; Davies Bros. and Lewis, £3,007; G. V. Williams and Sons, Ltd., £3,332; Thos. Mulcair, £3,838; Hussey Egan and Pickmere, Ltd., £4,015.

**Loughborough, Leics.**—Laying 12 in. spun-iron water mains at Tickhill Lane, Shepshed, for B.C.—T. E. and B. C. Steed, Mansfield, Notts., £917 (recommended).

**Rugby, War.**—Supply of 2,000 yd. of 3 in. pipes and 460 3 in. Tyton flexible joints for B.C.—Stanton Ironworks Co., Ltd., near Nottingham (recommended). Estimated cost £1,110.

**Staffordshire.**—Tittesworth reservoir scheme (contract 41) for Potteries Water Board, comprising the laying of approximately 7,600 lin. yd. of 30 in. nominal diameter steel bitumen-lined and sheathed water main with Viking Johnson couplings from Tittesworth reservoir to Laddergate reservoir, near Leek. C. V. Brown, engineer and manager—James E. Turner, Ltd., Limefield Brow, Walmersley Road, Bury, Lancs. Work commencing Jan. 1.

**Upton-on-Severn, Wores.**—Construction of a water supply scheme for Baughton for R.D.C.—Asphalt and Public Works, Ltd., Norwich Union Chambers, Congreve Street, Birmingham, £886.

#### HEATING AND VENTILATING

**Alton, Hants.**—Mechanical works for stage 11a of alterations, additions, etc., at the Lord Mayor Treloar Hospital for the Wessex Regional Hospital Board—H. G. Bruce and Partners, 41 Fairfield Road, Winchester, £4,165 (recommended).

**Bolton, Lancs.**—Central heating and gas installations at Laburnum Lodge for B.C.—Hassall Heating, Ltd., 26 Romney Road, Bolton (recommended).

**Bournemouth, Hants.**—Mechanical works for conversion to maternity unit at the First Hospital for the Wessex Regional Hospital Board—Mumford, Bailey and Preston, Ltd., 22a Holdenhurst Road, Bournemouth, £6,918 (recommended).

**Dagenham, Essex.**—Supply and installation of replacement oil-burning heaters at Robert Clack Technical School for B.C.—James Coombe and Sons, Ltd., 14 Carlisle Road, London, N.W.9, £1,364 (recommended).

**Middlesbrough, Yorks.**—Boiler plant and engineering services at North Ormesby Hospital for Newcastle upon Tyne Regional Hospital Board—Rowells (1924), Ltd., Byron Street, Newcastle upon Tyne, £15,340; builders' work—S. Lowe, Landsdowne Terrace, Middlesbrough, £2,351.

**Southampton.**—Oil firing of boilers at Royal South Hants. Hospital for the Wessex Regional Hospital Board—Todd Oil Burners, Ltd., Salisbury House, Finsbury Circus, London, E.C.2, £8,416 (recommended).

**West Hartlepool, Dur.**—Work at General Hospital, for Newcastle Regional Hospital Board: Heating, hot and cold water, steam and condense installation—Brightside Heating and Engineering Co., Ltd., Lambton Road, Newcastle upon Tyne, £29,180; installation of pipe ducts—John Proud, Ltd., York Road, West Hartlepool, £10,800.

#### HOUSING SCHEMES

**Becontree, Essex.**—Five two-storey houses, 32 flats for old people in four two-storey blocks, and 12 garages at Becontree estate for L.C.C.—Direct Labour £65,200.

**Bexhill-on-Sea, Sussex.**—Conversion of 14 Cranfield Road into 11 flatlets for aged persons for B.C.—L. W. Henty, 127 Bexhill Road, St. Leonards-on-Sea, £5,163 (recommended).

**Chislehurst and Sidcup, Kent.**—Eighty-two dwellings, 45 garages and community room at Northcote Road estate, Sidcup, for U.D.C. W. B. Farrow, engineer and surveyor—J. Anderson and Sons (Building Contractors), Ltd., Boundary Place, Sevenoaks Road, Orpington, Kent, £116,760 (subject to Ministry approval). Work to commence Jan.

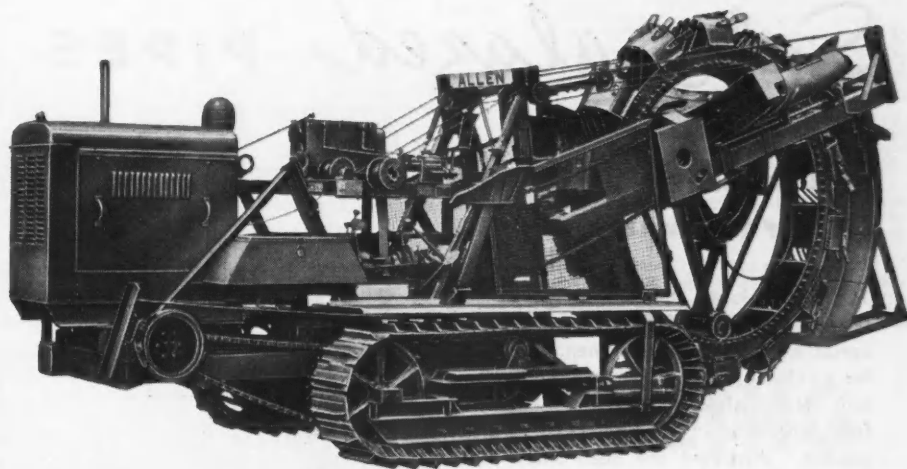
**Clogher, Tyrone.**—Twelve dwellings and garages at Crossowen for R.D.C.—Tracey and Quinn, Omagh, £22,484.

**Deptford.**—Eighteen maisonnettes in a four-storey block, together with eight tenants' stores, six garages and two parking spaces, at Lewisham Way site, for L.C.C.: T. R. Roberts (Builders), Ltd., 2 Devonshire Road, London S.E.23 £55,161 (accepted); S. G. and A. Agombar, £56,595; Thomas McInerney and Sons, Ltd., £57,134; The Demolition and Construction Co., Ltd., £57,572; M. Howard (Mitcham), Ltd., £57,814; Henry Kent (Builders), Ltd., £57,875; W. H. Gaze and Sons, Ltd., £63,581; Griggs and Son, Ltd., £65,273.

**Dundee.**—Private housing development of over six acres at Balgillo Road, Fintry Place and Seaford Road, Broughty Ferry—Bett Bros., Ltd., 9 Cox Street, Downfield, Dundee; erection of a block of flats at 151 Arbroath Road—A. Downie and Co., 2 Victoria Road, Broughty Ferry, Dundee.

**Folkestone, Kent.**—Conversion of Royal Pavilion Hotel to 200 flatlets for aged persons and a new block of 54 flatlets for

## ALLEN WHEEL TRENCHER MODEL 140



## 'FAST' TRENCHING

Combining speed of digging with dependability, the "140" has a range of traction speeds from .5 to 37.3 ft. per minute, and will cut clean, fast trenches, 17½ in. to 30 in. wide, to a maximum depth of 5 ft. 6 in. 16 in. smooth crawler tracks, with cleats, give a ground pressure of only 5.7 lbs. per sq. in.

Full details from U.K. manufacturers and distributors:

**JOHN ALLEN & SONS (OXFORD) LTD., Cowley, Oxford**





- N.** Burstin—Phillips and Franks, 91 Radnor Park Road, Folkestone, and West-cliff Builders, Southend-on-Sea, Essex. C. P. Griggs, architect, 102 Sandgate Road, Folkestone; Drower and Son, quantity surveyors, 127 Sandgate Road, Folkestone.
- Glasgow.**—Private development of 22 acres at Clobber estate, Milngavie, including about 140 houses—John A. Russell, Ltd., Church Works, Cromwell Street, Glasgow, N.W. Estimated cost £500,000.
- Gloucester.**—Sixty-four houses, 66 garages and ancillary works at North Matson estate, Stroud Road, Tuffley, for City Council—Wates, Ltd., 94 Hagley Road, Edgbaston, Birmingham, 16, £110,974. K. W. Bland, chief architect of Wates, Ltd., and Vale and Kingsford, quantity surveyors, 25 Aldgate Street, Gloucester.
- Mansfield, Notts.**—Eight traditional bungalows at Bull Farm housing estate for B.C.—Direct Labour, £12,242 (recommended).
- Newcastle upon Tyne.**—Two 15-storey blocks of flats in West Farm Road, Longbenton, for City Council—Leslie and Co., Ltd., 80 Woodland Road, Darlington, £409,085.
- Norton-Radstock, Som.**—Forty dwellings at Springfield, Radstock, comprising three-storey flats and maisonnettes, two-storey flats and bungalows, and the erection of 10 garages, together with the construction of roads, sewers and associated site works, for U.D.C. Redwood, Miles and Wills, architects, 18 Great George Street, Bristol, 1—Plummer and Hockey, Wells Road, Radstock, £66,005 (accepted); S. W. Foster, Ltd., £69,070. Work to commence mid-Jan.
- Norwich, Norfolk.**—(a) Three bungalows for aged persons at Walpole Street, (b) 63 dwellings and 24 garages at Lewis Street—Howard Street clearance area, and (c) 71 dwellings, one shop and 17 garages at Heartsease estate, for City Council—Direct Labour (recommended, subject to Ministry approval). Estimated cost (a) £3,360, (b) £126,973 and (c) £128,975.
- Nottingham.**—Fifteen houses and 14 flats and road works at Bilborough for City Council—Frost and Leatherland, Ltd., Dame Agnes Street, Nottingham, £45,496 (recommended).
- Peterborough.**—Following at Bluebell housing extension estate for City Council: 66 houses and four garages (groups 4, 5 and 10)—S. B. Fairchild and Sons, Ltd., 11 Welland Road, Peterborough, £93,252; 70 houses, 12 flats and 22 garages (groups 9, 11, 13 and 15)—H. J. Firman, Ltd., Flag Fen, Newark Road, Peterborough, £117,532; 12 flats (group 16)—W. Ferrar and Sons, Ltd., 1440 Lincoln Road, Werrington, Peterborough, £15,504; 12 flats (groups 12 and 14)—J. W. Barber and Son, Ltd., 9 Church Street, Stanground, Peterborough, £15,628 (recommended, subject to Ministry approval).
- Sandwich, Kent.**—Improvements to 22 pre-war houses for B.C.—W. Marchbanks and Son, 36 Moat Sole, Sandwich, £7,184 (recommended, subject to Ministry approval).
- Stepney.**—Twenty-two maisonnettes in two four-storey blocks at Cleveland estate and 20 maisonnettes in two four-storey blocks and 32 flats for old people in three two-storey blocks, with 16 tenants' stores, etc., at Cleveland estate extension for L.C.C.—Rowley Bros., Ltd., Tower Works, Dunloe Avenue, London, N.17, £19,860 (accepted); Wilson Lovatt and Sons, Ltd., £194,878; Rush and Tompkins, Ltd., £198,997; Carlton Contractors, Ltd., £204,948; Tersons, Ltd., £208,608; W. J. Simms, Sons and Cooke, Ltd., £213,987; H. Webb (Builders), Ltd., £214,614; J. Jarvis and Sons, Ltd., £215,560; Griggs and Son, Ltd., £216,527; A. T. Rowley (London) Ltd., £219,870.
- Stepney.**—Erection of two connected seven-storey blocks of dwellings at stage 3 of Spital Street scheme for B.C.—W. J. Marston and Son, Ltd., 1 Stephendale Road, London, S.W.6, £77,218 (recommended, subject to Ministry approval).
- Street, Som.**—Twelve bungalows at Westleaze for U.D.C.—Direct Labour, £11,400.
- Up Holland, Lancs.**—Seventy-three houses on the Highgate housing estate for U.D.C.—J. W. Liptrot and Co., Ltd., Brook Lane, Pemberton, Wigan, £116,890 (recommended, subject to Ministry approval).
- Wallasey, Ches.**—Construction of the first stage of a scheme for a new residential entrance to the town from Seacombe Ferry for B.C., comprising an 11-storey tower block of two-bedroom flats with 46 three-bedroom maisonnettes in four blocks, 32 garages and an electricity sub-station—G. Wimpey and Co., Ltd., Netherfield Road, Liverpool, 5, £235,833 (subject to Ministry approval). Work expected to commence this month.
- Wellington, Salop.**—Two hundred and forty-seven dwellings at Sandbrook No. 4 housing scheme for R.D.C.—D. B. Evans (Bilston), Ltd., Oxford Street, Bilston, £413,388.
- West Bromwich, Staffs.**—One hundred and eight nine-storey flats and 13 garages on three sites at Dial Lane, Ebenezer Street—Dial Lane and Spon Lane, Charlemont Farm estate, for City Council—Wates, Ltd., 94 Hagley Road, Edgbaston, Birmingham, 16, £262,645 (recommended).
- Worcester.**—Nine bungalows, 48 flats and 114 houses at Warndon estate, for City Council—A. C. Lloyd (Builders), Ltd., Chapel Street, Leamington Spa, £270,476 (recommended, subject to Ministry approval).
- Worthing, Sussex.**—Erection of 13-storey block of 52 flats at junction of Seaview Road and West Parade. Fitzroy Robinson and Partners, architects, 50 Norfolk Square, Brighton, 1—J. M. Hill and Sons, Ltd., Heather Park Drive, North Circular Road, Wembley, Middx., £200,000. Scheme in early stages.

#### MATERIALS AND SUPPLIES

- Nottingham.**—Supply of 800 Lora bottom grates 16in. (no legs), 2,000 Sutton grates 16in. and 750 Redfye 55 bottom grates 16in. for City Council—A. E. Bott, Ltd., Newark Street, Nottingham, £257 (recommended).
- Plymouth.**—Supply of the following for City Council for Prince Rock Depot: Selected joinery quality Red Deal—Plymouth and Oreston Timber Co., Sutton Road, Plymouth, £8,235; carcassing quality Red Deal, Vths, and selected joinery quality Red Deal—Montague L. Meyer, Ltd., New Docks, Southampton, £1,542 and £780; for Southway housing estate—selected joinery quality Red Deal—Jewson, Ltd., Palladium Stores, St. Levan Street, Plymouth, £1,225; 72 E.R.A. fires for houses—Plymouth Tile and Hardware Co., Ltd., 6 Whimble Street, Plymouth, £956; precast concrete sills, jambs, lintels, etc., for 44 houses—Maddock Concrete Products, Ltd., Embankment Road, Plymouth, £900; carcassing quality Red Deal—Montague L. Meyer, Ltd., £2,206 (recommended).
- Worthing, Sussex.**—Supply of sea defence timber for B.C.—H. C. Remington and Co., Ltd., West Worthing Goods Yard, St. Dunstons Road, Worthing, £5,276 (recommended).

## Salt glazed PIPES

### and fittings for every requirement

The Sharp Jones standard range of Salt Glazed Pipes and Fittings is sufficiently versatile to meet all requirements necessary for a reliable, trouble-free drainage system. Our team of craftsmen are skilled in fashioning those "special pieces" so often needed. Whatever the need Sharp Jones can provide it.

**SHARP JONES**  
& CO. LTD.

BOURNE VALLEY POTTERY, PARKSTONE, POOLE, DORSET. Tel: Westbourne 61226-7-8



**PLANT AND MECHANICAL TRANSPORT**

**Plymouth.**—Supply of six dumpers for City Council—Bristol Plant Hire, Ltd., Brislington Trading Estate, Bath Road, Bristol, 4, £1,920 (recommended).

**Rugby, War.**—Supply of a Ford 10/12cwt. van for B.C.—Rugby Autocar, Ltd., Clifton Road, Rugby, £442 (recommended).

**Southport, Lancs.**—Supply of following for B.C.: Merryweather 50ft. sliding carriage telescopic all-steel wheeled fire escape—Merryweather and Sons, Ltd., Greenwich High Road, London, S.E.10, £1,065; a Dennis 3 pump mounted at rear and with rear trunnion and brackets to carry a 50ft. all-steel wheeled escape—Dennis Bros., Ltd., Guildford, Surrey, £4,424 (recommended).

**Walsall, Staffs.**—Supply of a Magirus 100ft. hydraulic turntable ladder, mounted on an A.E.C. Mercury Mark I chassis (with diesel engine) for B.C.—David Haydon, Ltd., Lingard Street, Aston Cross, Birmingham, 7, £9,975, less £200 allowance for existing appliance (recommended).

**Worcester.**—Provision of two 16/18 cu. yd. capacity refuse collection vehicles for City Council—Shelvoke and Drewry, Ltd., 22 Florence Street, Birmingham, 1, £3,088 each (recommended).

**PLAYING FIELDS, PARKS, ETC.**

**Dagenham, Essex.**—Reinstatement of land at East Brookend site as school playing fields for B.C.—E. Doe and Sons (Contracts), Ltd., Pyfield, Ongar, £2,002 (recommended).

**Nottingham.**—Levelling, seeding and provision of hard tennis courts, athletic requirements and fencing at Charnock Avenue playing field for City Council—A. T. Brickwood, Ltd., Burton-on-the-Wolds, Loughborough, Leics., £10,996 (recommended).

**RAILWAY ENGINEERING**

**British Railways.**—Following contracts placed:

**Western Region**

Supply, installation, testing connecting and setting to work of electric lighting facilities, etc., at Lostwithiel Station, Goods Yard and Goods Shed—South Western Electricity Board, Mid-Cornwall District, Bodmin, Corn.

Demolition of the booking office and hall and other work at Ealing Broadway Station—Charles Griffiths, Ltd., Ripple Road, Barking, Essex.

Supply and installation of three wagon turntables at No. 21 Shop, Carriage and Wagon Works, Swindon—Cowans Sheldon and Co., Ltd., St. Nicholas Works, Carlisle.

Provision and installation of telephone train control equipment at Plymouth—M.L. Engineering (Plymouth), Ltd., White Waltham Aerodrome, Maidenhead.

Provision and installation of telephone train control equipment at Gloucester—Ericsson Telephones, Ltd., 22 Lincolns Inn Fields, London, W.C.2.

Provision and installation of telephone train control equipment at Shrewsbury—Ericsson Telephones, Ltd., Lincolns Inn Fields, London, W.C.2.

Carrying out repairs to the retaining wall in the goods yard at Stroud, to Stratford Viaduct, Stroud, and to the under-bridge at Stonhouse, Glos.—Robert Powdrill and

Co., Ltd., Victoria Road, Swindon, Wilts. Stripping and renewal of the roofing of ET Shop, Locomotive Works, Swindon—Baileys (Bristol), Ltd., Lower Ashley Road, Bristol, 2.

Supply, installation, testing, connecting and setting to work of electric lighting facilities, etc., at Lampeter Station—W. J. Furze and Co. (Manchester), Ltd., Royal Buildings, Port Talbot, Glam.

Provision and installation of 12 trunk telephone carrier circuits between Cardiff and Swansea—Standard Telephones and Cables, Ltd., North Woolwich, London, E.16.

Reconstruction and widening of the over-bridge at Lawrence Hill, Bristol—Stone and Co. (Bristol), Ltd., Redland Road, Bristol, 6.

Supply, installation, testing, connecting and setting to work of electric lighting facilities, etc., at Cradley Heath Station and Yard—Clough, Smith and Co., Ltd., Boundary Estate, Fordhouses, Wolverhampton.

Provision of a power signal box and of a small messroom at Slough—Anglo-Scottish Construction Co., Ltd., Coombe Lane, Raynes Park, London, S.W.20.

Insulating and reproofing of the wagon repair depot and the construction of a small paint store at Cardiff (Cathays) Wagon Works—Industrial Building and Maintenance, Ltd., Queens Road, Reading.

Carrying out repairs to the piers of the bridge under the line on the Gloucester Docks branch—Nott, Brodie and Co., Ltd., Sheene Road Works, St. John's Lane, Bristol, 3.

Supply, installation, testing, connecting and setting to work of electric lighting facilities, etc., at Bassaleg—W. J. Furze and Co. (Manchester), Ltd., Talbot Road, Port Talbot, Glam.

Conversion of an existing two-storey office and amenity building to provide new canteen facilities at South Lambeth Goods Depot and carrying out alterations to the existing canteen on the first floor of the goods warehouse—F. J. Henry (Builders), Ltd., Benbow Road, London, W.6.

Painting 27 under-bridges between Bruton and Creech Junction in the Taunton district—Gilmours (Manchester), Ltd., Higher Road, Urmston, Manchester.

**RIVER AND FLOOD PREVENTION WORKS**

**Hounslow, Middx.**—Diverting and culverting of the Duke of Northumberland and Longford Rivers at London Airport for the Air Ministry—Higgs and Hill, Ltd., Crown Works, South Lambeth Road, London, S.W.8, £100,000.

**Penzance, Corn.**—Diversion of the stream, excavations to stream bed, building-up of side walls with blockwork and concreting bottom, diversion of existing foul water sewer to new lines and levels, including all manholes at Newlyn Coombe for B.C. P. H. Tresidder, engineer and surveyor—A. H. Dingle, Ltd., Seton, Redruth, Corn., £3,959 (accepted); E. Thomas and Co., Ltd., £4,770; J. L. Eve Construction Co., Ltd., £5,299. Work has commenced.

**ROADS, BRIDGES AND SITE WORKS**

**Bathavon, Som.**—Site works at the housing site at Combe Down, Bath, in the parish of Monckton Combe for R.D.C.—C. Kendall

and Sons, Timsbury, near Bath, £3,786 (recommended, subject to Ministry approval); E. Ireland, Ltd., £3,844; The Cradmin Co., Ltd., £4,012; The Durnford Construction Co., Ltd., £4,603; Smith and Lacy, Ltd., £4,771.

**Bedfordshire.**—Construction of dual carriage-ways on the London-Edinburgh-Thurso trunk road, A1, from north of Beeston to Girtford Sidings railway bridge, overall length approximately 1½ miles for C.C. Included in the contract is the construction of a new bridge and flood arches over the River Ivel steel flood arches, earthworks and drainage—A. Monk and Co., Ltd., 11a Ironmonger Street, Stamford, Lincs. £330,976.

**Bingley, Yorks.**—Resurfacing in single-course rolled asphalt of approximately 3,500 sq. yd. of the Bradford-Keighley road between Millgate and Park Road, together with incidental works, for U.D.C. T. S. Lattin, engineer and surveyor—Trinidad Lake Asphalt Co. (North Western), Ltd., Liverpool.

**Dagenham, Essex.**—Improvement of Romford Road between Whalebone Lane and Golf Clubhouse for B.C.—Roads and Public Works, Ltd., 180 Clapham Road, London, S.W.9, £24,756 (recommended).

**Dudley, Worcs.**—Following for B.C.: Wadams Pool improvement—Mee Mulrey and Co., 365 Olton Boulevard East Birmingham, 27, £7,877; development of land at Wolverton Road including the provision of a car park—Bulldozers (Kingswinford), Ltd., 38 Penzer Street, Kingswinford, Brierley Hill, £15,651 (recommended).

Preparation of Bramble Green garage site—W. and J. Glossop, Ltd., Birmingham, 27 (recommended extension of contract). Estimated cost £1,000.

**Hartley, Kent.**—Construction of a children's playground in tarmacadam, area approximately 860 sq. yd., at Church Road, for The Mother Superior, St. Joseph's Convent, Junior School—Hodsons, Ltd., 17 Wrotham Road, Gravesend.

**Hastings, Sussex.**—Construction of roads and sewers in connection with the redevelopment of Halton clearance areas for B.C.—Direct Labour (recommended). Estimated cost £25,650.

**Hatfield, Herts.**—Construction of following for R.D.C.: Cul-de-sac, Welham Green—footpath, Swanley Bar Lane, piping ditch and formation of vehicular access, Great Wood, Northaw, and raising existing gully grates and frames at Manor Road—W. A. Bowler, 81 Whitmore Road, Harrow, Middx., £787.

**Heston and Isleworth, Middx.**—Resurfacing Twickenham Road from Percy House to South Street and from Worton Road to the borough boundary, for B.C.—Sparkes Construction, Ltd., Ludlow Road, Feltham, £32,494 (recommended, subject to C.C. approval).

**Leicester.**—Construction of a further extension of Ethel Road from Headland Road for City Council—Galliford and Sons, Ltd., The Heath, Wolvey, Hinckley, £23,891 (recommended).

**Loughborough, Leics.**—Provision of a 4-ton lorry for B.C.—Gillotts Garage, Ltd., Derby Road, Loughborough, £1,112 (recommended).

**Mitcham, Surrey.**—Widening and improvement of part of Bond Road for B.C.—W. and J. Glossop, Ltd., 123 East Hill,

# FENCING

MILD STEEL

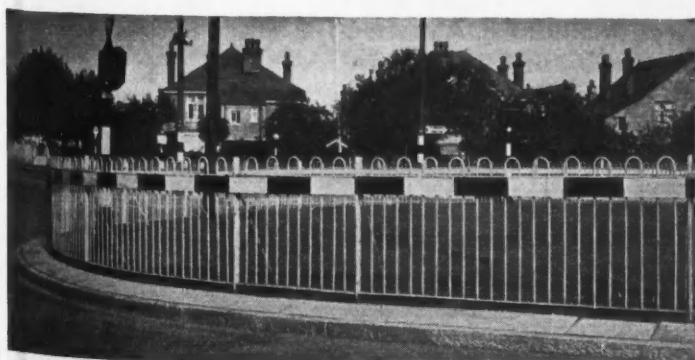
CHAIN LINK

WOVEN WIRE

To ensure prompt  
delivery be sure to specify Croggon

CROGGON &amp; CO. LTD · ESTABLISHED 1835

# Croggon



230 UPPER THAMES STREET · LONDON · E.C.4 · CENTRAL 4381

Poyle Steelworks · Colnbrook · Nr. Slough · Colnbrook (CN8) 2504

8 Cornhill · Liverpool · Royal 3868

7 John Street · Glasgow · Bell 2983

London, S.W.18, £10,322 (recommended); W. H. Gaze and Sons, Ltd., £10,384; Waywarden, Ltd., £11,039; J. E. Billings and Co., Ltd., £11,170; W. F. Rees, Ltd., £11,370; John Sugrue and Sons, £25,320.

**Poplar.**—Widening of Poplar High Street, from Wind Street to Dolphin Lane, for B.C.—Fitzpatrick and Son (Contractors), Ltd., 455 Old Ford Road, London, E.3, £7,480 (recommended).

**South Shields, Dur.**—Reconstruction of William Street for B.C. John Reid, borough engineer—Direct Labour, £4,300.

**Steventon, Berks.**—Construction of tarmac road, concrete kerbing and asphalt paving and grass verging, together with the construction of surface water sewers at the Steventon estate. John Osborne, quantity surveyor, Bedfordshire House, King Street, Luton, Beds.—Barshaw (Contractors), Ltd., 20 Great Northern Road, Dunstable, Beds., £15,690 (accepted); Abacon, Ltd., £14,770; R. J. Huggard, Ltd., £16,092; Amey's Asphalt Co., Ltd., £16,358; Lawson Construction (Cheltenham), Ltd., £17,833. Work to commence Jan. 2.

**Street, Som.**—Site works for 12 bungalows at Westleaze for U.D.C.—Direct Labour, £900.

**Up Holland, Lancs.**—Construction of roads, sewers, etc., on the Highgate housing estate for U.D.C.—J. W. Liprot and Co., Ltd., Brook Lane, Pemberton Wigan, £14,570 (recommended, subject to Ministry approval).

**Worcester.**—Repair of road across Pitchcroft and paths in Cripplegate Park, Gheluvelt Park, St. Andrew's Gardens and King George V Memorial Ground, for City Council—Asphalt and Public Works, Ltd., 36 The Tything, Worcester, £720 (recommended).

#### SEWERAGE, SEWAGE AND REFUSE DISPOSAL

**Bathavon, Som.**—Works in connection with the Newton St. Loe and Corston sewerage and sewage disposal scheme for R.D.C.—Ernest Ireland, Ltd., Lower Bristol Road, Bath, £41,081. Work to commence shortly.

**Bexhill-on-Sea, Sussex.**—Provision of equipment for mechanical screens at disintegrator station for B.C.—S. S. Stott, Ltd., 107 Eastcote Road, Pinner, Middx., £775 (recommended).

**Bromley, Kent.**—Construction of a soil sewer at Norman Park for B.C.—Mannion Bros. (Harrow), Ltd., 298 Preston Road, Harrow, £2,881.

**Carmarthenshire.**—Construction of 6,000 lin. yd. of sewers, varying from 12in. to 42in. in diameter, mainly in open-cut, together with certain remedial works, alterations and additions to the existing sewer system, and substantial river protection works (contract 1) for the Amman Valley Joint Sewerage Board. C. D. C. Braine and Partners, consulting engineers, Jotham's Buildings, 26-27 St. Mary Street, Cardiff—Norwest Construction Co., Ltd., Litherland, Liverpool, £201,000. Work to commence spring, 1961.

**Chesterfield, Derbys.**—Construction of the Gleadless-Ford trunk sewer, Eckington, comprising approximately 100 lin. yd. of 6in. diameter sewer, 2,837 lin. yd. of 9in. diameter sewer, 3,269 lin. yd. of 12in. sewer, 65 manholes, a storm overflow chamber, and incidental works for R.D.C. J. B. Wikeley, engineer and surveyor—H. Camm and Co., Ltd., Birdholme House, Derby Road, Chesterfield, £29,396.

**Deben, Suffolk.**—Laying approximately 580 yd. run of 6in. s.g.s.w. sewers, together with manholes and renovations to a small sewage disposal works, to serve a population of about 400 persons at housing site, Ufford, for R.D.C. H. E. Welbourn, engineer and surveyor—Sadler and Son, 81 Richmond Road, Ipswich, £6,098 (accepted); A. J. Gibbons and Son, £6,187; Cubitt and Gotts, Ltd., £6,652; Bennett and Snare, Ltd., £6,973.

**Godstone, Surrey.**—Construction of approximately 75 lin. yd. of stoneware surface water sewers and drains, 9in. in diameter, complete with manholes and other appurtenances at Station Road, Oxted, for R.D.C.—Beasley Bros., Tinsley Green, Crawley, Sussex.

**Grimsby, Lincs.**—Waltham extension sewer for R.D.C., including the laying of 2,000 yd. of 6in. diameter concrete pipe sewers, with manholes and house connections. John H. Haiste and Partners, consulting engineers, Belmont House, 20 Wood Lane, Headingley, Leeds, 6—W. Sloyan, 8 Priory Crescent, Scunthorpe, £19,008. Work commencing Feb.

**Hambledon, Surrey.**—Construction of approximately 160 lin. yd. of 6in. diameter surface water sewer and ancillary works across

open meadow at Dunsfold for R.D.C.—Watts Bros. Co., Ltd., Moulsham Copse Lane, Yateley, near Camberley, £384 (accepted); F. J. Dunkerton, Ltd., £402. Work just commenced.

**Leyton, Essex.**—Supply of a venturimeter for B.C.—Geo. Kent, Ltd., 199 High Holborn, London, W.C.1, £1,215 (recommended).

**Norwich, Norfolk.**—(a) Connection to north western intercepting sewer at junction of Queens Road and Grove Road to relieve surcharging and flooding in Surrey Street, and (b) supply and erection of machinery for sludge digestion plant, for City Council—(a) Direct Labour, £1,540, and (b) Ames Crosta Mills and Co., Ltd., Moss Iron Works, Heywood, Lancs., £27,585 (recommended, subject to Ministry approval).

**Oxford.**—Completion of the southern outfall sewer at Blackbird Leys estate for City Council—Tilbury Construction Co., Ltd., Moreton Road, South Moreton, Didcot, Berks., £6,287 (recommended).

**Plymouth.**—Construction of foul and storm water sewers at Eastover industrial estate for City Council—R. Costain, Ltd., 4 Princess Place, Plymouth, £111,312 (recommended).

**Poplar.**—Sewer reconstruction at Bruce Road and Grace Street, for B.C.—Fitzpatrick and Son (Contractors), Ltd., 455 Old Ford Road, London, E.3, £14,969 (recommended).

**Rugby, War.**—Surface water drainage at Lower Street, Hillmorton, for B.C.—Modern Plant Hire, Ltd., 392 Newbold Road, Rugby, £3,362 (recommended, subject to Ministry approval).

**Sidmouth, Devon.**—Laying of a 36in. diameter sewer outfall, extending 1,500ft. seaward of high water, either in cast iron on trestles or in welded steel pipe on the sea bed for U.D.C. Lewis and Duviver, consulting engineers, 4 Howick Place, London, S.W.1—J. L. Kier and Co., Ltd., 7 Lygon Place, Grosvenor Gardens, S.W.1, £73,908. Work to commence spring, 1961.

**Southport, Lancs.**—Construction of a length of gravity sewer and rising main in Moss Lane for B.C.—Direct Labour (recommended). Estimated cost £3,000.

**South Shields, Dur.**—Construction of new sewer in Bertram Street for B.C. John Reid, borough engineer—William Press and Son, Ltd., Valley Street North, Darlington, £56,516.



site buildings right away

# Phone WERNICKS

**LONDON: LANGHAM 4847/9**  
**WOLVERHAMPTON: 25028/9**  
**BILLERICAY: 1661/2**




When site buildings are required urgently a telephone call to Wernicks will bring immediate delivery of the exact type of building you need. No fuss! No delay! Lowest price!

**OR WRITE 64/66 Oxford Street, London, W.1**  
**Dept. 83, Waterloo Road, Wolverhampton.      Dept. 83, 108 High Street, Billericay, Essex**



**Stepney.**—Sewer reconstruction at White-chapel Road, for B.C.—Mexfield Tunnel Engineering Co., Ltd., 66 Pembroke Road, London, W.8, £9,759 (recommended).

**Truro, Corn.**—Construction of the Mylor Bridge sewerage scheme for R.D.C., comprising approximately 5,300 lin. yd. of 9in., 6in. and 5in. spun-iron and salt-glazed ware sewers, together with the construction of all necessary manholes. The contract includes the construction of a sewage pumping station and a sewage treatment works. Osmand and Lane, consulting engineers, Trevemper Lodge, Trevemper Uridge, Newquay—Hendersons Contractors (Newquay), Ltd., 74 Fore Street, Newquay, £47,539. Work about to commence.

**Uttoxeter, Staffs.**—Construction of the Mayfield sewerage and sewage disposal scheme for R.D.C.—O'Dair Bros., Ltd., Uttoxeter Road, Tean, Stoke-on-Trent, £97,382 (recommended, subject to Ministry approval).

**Wakefield, Yorks.**—Construction of sewers, chamber and appurtenant works, Ings Road, Kirkgate, for City Council. I. N. Sedgwick, city engineer—Walter Birch (Harrogate), Ltd., Montpellier House, Harrogate. Estimated cost £5,000.

**Winfield, Ches.**—Swanlow South sewerage scheme for U.D.C., involving the laying of approximately 2,190 yd. of 12in., 9in. and 6in. foul sewer, together with ancillary works. L. E. Wakefield, engineer and surveyor—Martin Coleman, Manchester Road, Northwich, Ches., £10,828.

#### STREET LIGHTING

**Lichfield, Staffs.**—Provision of street lighting at the Friary roundabout for Co. Roads and Bridges Committee—A.E.I. Lamp and Lighting Co., Ltd., Trafford Park Road, Manchester, 17, £1,719.

**Shoreditch.**—Improvements to public lighting for B.C.—O. C. Summers, Ltd., 111 York Way, London, N.7, £1,116 (recommended).

**Warrington, Lancs.**—Provision and installation of the following class B street lighting standards for R.D.C.: Croft village scheme, 37; other parishes, 27—Atlas Thorn, Ltd., Thorn House, Upper St. Martins Lane, London, W.C.2. Work commencing March, 1961.

#### GOVERNMENT CONTRACTS

**Air Ministry.**—Contracts to the value of £4,000 or over for the week ended Nov. 25: Building work: Benson, Oxon—Stanley Hugh Leach, Ltd., 231-231a Yeading Lane,

Hayes, Middx.; Cranwell, Lincs.—Bernard Pumfrey, Ltd., Wintern Works, Lea Road, Gainsborough, Lincs.; Ballykelly, Limavady, Co. Londonderry, Northern Ireland—Farrans, Ltd., Dunmurry, Belfast, Northern Ireland; Alconbury, Hunts.—Robert Marriott, Ltd., Midland Works, Rushden, Northants.; Lakenheath, Suffolk—Walter Lawrence and Son, Ltd., Ventnor House, London Street, Swaffham, Norfolk; Wroughton, Wilts.—F. Rendell and Sons, Ltd., St. John's Street, Devizes, Wilts.; Patrington, Yorks.—P. J. Parrott and Co., Ltd., Main Street, Methley, Leeds, Yorks. Civil Engineering work: Benson, Oxon—The Tarmac Civil Engineering, Ltd., Etingshall, Wolverhampton, Staffs.

**Artificers' work:** Fauld (Staffs.), etc.—H. E. Swain, Ltd., 20 Lichfield Street, Walsall, Staffs.; Mount Batten (Devon), etc.—Willcocks and Stephens, Ltd., Lower Polsham Road, Paignton, Devon.

**Painting work:** Manby, Strubby, etc. (Lincs.)—J. D. Tighe and Co., Redbourne Mere, Kirtton Lindsey, Gainsborough, Lincs.; Kinloss, Morays, Raigmore, Inverness, and Dalcross, Invernesshire—P. T. Roberts and Son, Ltd., 163 Albert Street, Dundee, Angus.

**Installation (plenum heating system) in building:** Heywood, Lancs.—Supervents, Ltd., Magnare House, Sidecup By-pass, Sidecup, Kent.

**Electrical mains distribution and internal wiring services:** Unit Stores, Royal Air Force, Akrotiri, Cyprus—Jupiter Electrical Co., 45-47 Onassagorou Street, Nicosia, Cyprus.

**Ministry of Works.**—Contracts placed for week ended Nov. 19:

Gloucestershire: Post Office, Queens Road, Bristol—erection—Robert Watson and Co., Ltd., Filton Office, Filton, Bristol.

Lancashire: Her Majesty's Remand Centre, Risley—demolition and clearance of structures—Connell and Finnigan, Ltd., 44 Molyneux Street, Chorlton-on-Medlock, Manchester, 13; Joint Office Building, Renshaw Hall, Renshaw Street, Liverpool—internal decorations—J. Stott and Son, Ltd., 9 Sheil Road, Liverpool.

London: Old Public Offices, Whitehall, S.W.1—heating plant rooms—W. C. Deane, Ltd., Romney Works, Amyand Park Road, Twickenham, Middx.

Middlesex: National Physical Laboratory, Teddington—decoration work—T. H. Kenyon and Sons, Ltd., Chancellor's Works, Croyley Road, London, W.9; installation of rolling mills—Albert Mann Engineering Co., Ltd., Basildon Industrial Estate, Essex.

Monmouthshire: Post Office Sorting Office, Tredegar—erection—W. and A.

Davies, Ltd., Snatchwood Road, Aberystwyth, Pontypool.

Norfolk: Thorpe Telephone Exchange, Norwich—extension, stage II—J. Youngs and Sons, Ltd., City Road Works, Norwich.

Northumberland: Ministry of Pensions and National Insurance, Benton, Newcastle upon Tyne—Extensions to blocks 2 and 15—John Jackson and Sons (Builders), Ltd., 72 Corporation Street, Newcastle upon Tyne.

Surrey: Palm House, Kew—boiler installation—Sulzer Bros. (London), Ltd., 12 Dyott Street, London, W.C.1.

**War Department.**—Contracts placed for the week ended Nov. 18:

Cumberland (Longtown): building—The Border Engineering Contractors, Ltd., Whitehaven.

Dorset (Lulworth Camp): building—Jas. Drewitt and Son, Ltd., Bournemouth.

Gloucestershire (Beachley): prefabricated hutting—Medway Buildings and Supplies, Ltd., Rochester.

Hampshire (Tidworth): painting and decorating—M. A. Appleton (Contractors), Ltd., Wolverhampton, and C. A. Hayes and Sons (Painting), Ltd., Bristol; (Deepcut): building—C. Neal and Son, Ltd., Leatherhead; electrical—R. F. Webb, Ltd., Southampton.

Lancashire (Lancaster): miscellaneous—John Siddle, Lancaster.

Northumberland (Otterburn and Redesdale): roadwork—H. V. Smith and Co., Ltd., London, N.W.1.

Wiltshire (Ludgershall and Tidworth): painting and decorating—Fields, Ltd., Reading; (Warminster): painting and decorating—Quick Bros. (Newport), Ltd., Bristol.

Yorkshire (Catterick Camp): water supply—Abraham Graham and Son (Huddersfield), Ltd., Huddersfield; (York): painting and decorating—Donald Humberstone and Co., Ltd., Louth, Lincs.; (Catterick): gas mains—William Press and Son, Ltd., Darlington.

Contracts placed for the week ended Nov. 25:

Dorset (Lulworth Camp): heating and ventilating—F. Church, Ltd., Oxford.

Hampshire (Middle Wallop): miscellaneous—Downer and Bailey, Ltd., Downton, Wilts.; (Bordon): building—J. M. Hill and Sons, Ltd., Wembley; (Aldershot): building—C. Neal and Son, Ltd., West Horsley.

Hertfordshire (Bushey): landscaping—E. Doe and Sons (Contracts), Ltd., Ongar.

Warwickshire (Sutton Coldfield): miscellaneous—F. Harris and Co., Ltd., Leicester.



*'GEOPI' Traffic Controls can be designed to suit your particular problem. Full details from*

**GEORGE PIKE LIMITED**

BELFAST	EQUIPMENT WORKS	BRISTOL
CARDIFF	ALMA STREET	GLASGOW
LONDON	BIRMINGHAM-6	MANCHESTER
PETERBOROUGH		STOCKTON

# VAL DE TRAVERS

## FOR ASPHALTE · TARMACADAM · FELT ROOFING

LONDON · BARROW · BIRMINGHAM · CANTERBURY · EXETER · GLASGOW · LINCOLN · LIVERPOOL · MANCHESTER · NEWCASTLE

## CIVILS DISCUSS I.C.E. CONDITIONS OF CONTRACT

**I**NTRODUCING an informal discussion on the operation of the I.C.E. General Conditions of Contract held at the Institution of Civil Engineers in London recently, Mr. A. M. Holbein, C.B.E., B.Sc., M.I.C.E., said no one who was in any way associated with the production of the Standard Form would claim that it was perfect in every particular. It must however be remembered by those who were disposed to criticise particular provisions that it was only arrived at after a great deal of hard bargaining and compromise between representatives of the sponsoring bodies. Indeed, it was doubtful whether it would ever have reached finality if the bodies had not, with much good sense, given their representatives plenipotentiary powers.

He said that he did not propose to refer to the detailed provisions of the Form but there was one matter of overriding importance to which reference ought to be made and that was the provision for completely open arbitration.

### Arbitration

It was now generally accepted that contractual disputes should be able to be submitted to an independent arbitrator for determination, he said, and this contract provided for this right (which, it should be remembered, can be exercised by the employer as well as by the contractor) without any exceptions whatsoever. At the same time, the employer's legitimate right to insist that the work should not be in any way held up pending an appeal to arbitration was amply safeguarded.

When this provision was introduced, fears were expressed that it would lead to a great increase in the number of arbitrations. Happily, that did not seem to have proved to be the case, since there were very few reports of cases either before arbitrators or before the Courts in which disputes had arisen under those conditions.

### Wide Adoption

During the 15 years since they were first introduced, the I.C.E. Conditions

had come to be very widely adopted by employing authorities. The Ministry of Transport used them for the road programme; the Central Electricity Generating Board used them for power station construction and other constructional works; the British Transport Commission was using them for the civil engineering works in their railway modernisation programme; and they were almost universally adopted for local authorities' civil engineering works as well as by consulting engineers and private industrial concerns.

No doubt in the future further editions of the I.C.E. Conditions would have to be issued. However, the feeling of the Joint Contracts Committee was that alterations in the Conditions should be kept to an absolute minimum, since one of the advantages of a Standard Form was that it came to be widely known and accepted by those who were concerned with civil engineering works. The fundamental soundness of the Conditions was attested by the fact that they had been in use for 15 years without serious difficulty.

### Improving Clarity

From the ensuing discussion the general impression gained was that the General Conditions of Contract were extremely useful but a number of minor alterations to improve clarity would be useful.

## AERONAUTICAL LECTURE THEATRE OPENED

Lord Brabazon of Tara recently opened the new lecture theatre of the Royal Aeronautical Society at 4 Hamilton Place, London, W.1.

The theatre, which cost about £90,000, has taken just over a year to construct. It is 45ft. wide, 52ft. long and holds 310 people. The architects for the building were Ley, Colbeck and Partners, and the main contractors were Holland & Hannen and Cubitts, Ltd. In addition to the theatre, which has been built in the grounds of 4 Hamilton Place, a fifth floor has been added to the existing premises.

## £1½M. SMITHFIELD POULTRY MARKET CONTRACT

**T**HE Court of Common Council of the City of London Corporation has been recommended to accept the £1,561,722 tender of Sir Robert McAlpine and Sons, Ltd., 80 Park Lane, London, W.1, for the erection of a new poultry market at Smithfield.

Plans include a ventilated market hall, offices, parking space with two roofed avenues, a new Cock Tavern, and cold storage accommodation in the basement. A concrete shell roof, believed to be among the largest in the world, is also incorporated in the scheme.

T. P. Bennett and Son, 43 Bloomsbury Square, London, W.C.1, are the architects, and the consulting engineers are Ove Arup and Partners, 13 Fitzroy Street, W.1.

### Multi-Storey Car Park Tender

The Court of Common Council has also been recommended to accept the £322,322 tender of John Mowlem and Co., Ltd., 91 Ebury Bridge Road, S.W.1, for the construction of an open-sided ramp-type multi-storey car park for 612 cars at Site No. 3, Upper Thames Street.

## ITALIAN DELEGATION VISIT BRITAIN

A delegation of eleven Italian Parliamentarians, senior civil servants, architects, engineers and educationists, is now in this country examining school building.

The visit is the result of the success of the British primary school exhibited at this year's Milan Triennale. A large school building programme is in prospect in Italy, and the delegation wishes to learn more about the methods which have enabled Britain to provide over 3,000,000 new school places since the war while combining high quality with low cost.

## INTERNATIONAL ASSOCIATION FOR HYDRAULIC RESEARCH

A British National Committee of the International Association for Hydraulic Research has been set up by the Institution of Civil Engineers with the purpose of increasing substantially the British membership of the Association. It is also hoped that the Association will hold a conference in England in the near future.

(Concluded from previous page)

rainwear industry, condemned food, carcasses, etc.—a Heenan two-cell incinerator unit, complete with combustion chambers, flues, dust traps and chimney has been provided.

### Dumpmasters

Residual tailings, after leaving the picking belts, are collected on a single 36in. wide conveyor, discharging to two 100 cu. yd. capacity hoppers by means of a movable tripper with a reversible throw-off conveyor and a two-way chute for delivery to either of the hoppers beneath. The tripper conveyor travels at 60ft. per minute and the tripper cross conveyor, which is reversible, at 200ft. per minute. The final discharge to the bulk haulage vehicles from the tailings hoppers is achieved by steel plate conveyors. These conveyors discharge directly to the Cleansing Department's Dempster Dumpmasters.

The City Council has invested £19,411 in three of these bulk hauling compaction vehicles, which are manufactured by Powell Duffryn Engineering Co., Ltd.

The Dumpmaster consists of a 30 cu. yd. nominal capacity body complete with an integral compaction ram, mounted on standard eight wheel, 24-ton G.V.W. chassis. The three vehicles in the service of Salford are all mounted on Foden F.G.6/24, eight wheel, 24-ton G.V.W.

13ft. 7½in. wheelbase chassis and cab. The refuse is loaded through the hopper opening and when the hopper is full the compaction ram is operated. This operation thrusts the refuse to the rear and compacts it against the rear door. The ram is then returned and the hopper is once again filled and the compaction cycle is repeated.

The compaction ratio is 2:1 on average density materials.

Unloading of the refuse is carried out by unlatching the rear door and operating the compaction ram. The ram forces the refuse against the rear door, which being unlatched is forced open and allows the refuse to be dumped.



The three Dumpmasters which will remove the tailings from the depot

## AUTOMATIC SEWAGE SAMPLER

By Sir Herbert J. Manzoni, C.B.E.,

City Engineer and Surveyor, Birmingham

AT an early stage in the Birmingham Public Works Department's drive to reduce the pollution load of trade effluent discharged to the sewers, it became apparent that automatic sampling of the flow in the sewers was essential. A large scale exercise in manual sampling proved extremely expensive and unsatisfactory, because the sampling could only be intermittent.

resisting, to avoid damage and contamination of the sample.

The first of these conditions meant that: (a) The apparatus should be in small, light units which could be easily assembled in the extremely limited space of a manhole. (b) It had to have its own power supply. (c) The suction pipe had to be capable of being submerged in moving sewage for long periods without gathering debris.

The second condition, the ability to take a continuous sample, presented one problem, but at the same time solved two others. The problem was to find a pump which would pump slowly enough and so avoid a troublesome overflow arrangement. Fortunately when the sampler was being designed such a pump became available. The problems solved by adoption of continuous sampling are that the rate of pumping is so low that there is no appreciable current up the suction pipe, so that there is little chance of its becoming blocked by debris sucked into it, and that there is no need

for special provision to empty the suction side to avoid contaminating the next sample. This is essential in intermittent sampling.

### The New Apparatus

The apparatus evolved to meet these conditions is shown in the photograph. Two layers of one pint polythene sample jars, each layer consisting of two concentric rings, are mounted in a framework which comes apart, complete with jars, into three separate segments. In the centre of this array is a sealed can which contains a 12-V motor and a clockwork

time switch. The motor drives a vertical spindle projecting through the middle of the lid. On the top of this spindle is a nylon cup with a long spout discharging over a ring of 48 polythene funnels, each having a nylon tube leading to a sample jar.

The pump or "flow inducer" was designed, it is believed, for use with the artificial heart and lung machine. The pumping action is obtained by rollers pressing in turn on a latex rubber tube. The motor speed can be adjusted to the required pumping rate and there are no valves and no metal parts in contact with the sewage. The pump discharges continuously into the cup on top of the spindle.

Every 15 minutes the clockwork timing device switches on the motor driving the spindle which is then turned through  $1/48$ th of a revolution and switched off. This moves the spout taking the discharge from the cup from one funnel on to the next. The speed of the pump motor is adjusted for different lifts so that a sample jar is nearly filled in 15 minutes. When the spindle has completed one revolution, and all 48 jars are filled, the pump motor is automatically switched off and the apparatus stops. A 12-V battery supplies the power.

### Suction Pipe

The suction pipe, which is permanently in the flow, is a length of nylon tubing pierced with a large number of small holes along the last 6 in., the open end being plugged. This tube dangles loosely in the flow and its smoothness and waving action prevent it from becoming an obstruction. The pumping rate is so low that only two or three of the small holes are required to maintain the flow and there is virtually no possibility of a complete choke.

The sample jars hold a complete record of 12 hours flow in the sewer, timed to within 15 minutes. A further refinement under consideration is a means of starting the apparatus at any pre-determined time after it has been put in position. Thus it could be set up at any convenient time during the day, but not start work until say 6 a.m. the next day. The ensuing 12 hours operation would cover the working day.

The equipment has worked for a total of 360 hours unattended in manholes and, apart from teething troubles with earlier component parts, has worked with complete success.

The sampler was designed and made by members of the Public Works Department's staff and the Corporation have applied for a patent.



Automatic sewage sampler

A review of existing automatic samplers showed that none would meet the Department's conditions. These conditions were:

- (1) The sampler had to pass a manhole opening only 1 ft. 3 1/4 in. by 1 ft. 8 in., be set up on a temporary platform in a manhole and left unattended for at least 12 hours.
- (2) To detect short-lived flushes of strong wastes, the apparatus had to take a continuous sample.
- (3) All parts in contact with the sewage (which is industrial) had to be acid

## EASTERN FEDERATION PUBLISH AGREEMENT FOR LABOUR ONLY SUB-CONTRACTING

THE steady growth of labour only sub-contracting has caused the Eastern Federation of Building Trades Employers to issue for the exclusive use of its members a brief but comprehensive agreement which members are strongly advised to use where they contemplate labour only sub-contracting.

Referring to the decision to make such a form available, the Director, Mr. R. W. Porter, in a special letter to all member firms has this to say in reference to the disadvantages of this type of work.

"Failure to meet the employer's obligations to his workpeople in the payment of wages, stamping of cards, accounting for P.A.Y.E., insuring against employers' liability, coupled with poor workmanship, unbusiness-like methods, and the lack of care with materials and plant all bring discredit to the industry and often loss and inconvenience to the main contractor."

Although members cannot be compelled to use the form, the Director suggests that if a labour only sub-contractor is not prepared to sign it that particular subletting arrangement should be re-examined.

The Eastern Federation feels that whatever the personal views of its many members may be, labour only sub-contracting is an integral part of the present industrial organisation of the building industry. That being so the Federation has a duty to protect its members and assist them in remedying abuses as far as possible.

The measure of the need for this form can be judged from the fact that within 10 days of its publication some 5,000 copies have been requested by member firms, and a reprint has already been put in hand.

### EDMUND NUTTALL'S ISRAELI CONTRACT

Edmund Nuttall, Sons and Co. (London), Ltd., and the Israeli National Engineering Co., have been awarded a joint contract, valued at £640,000, for the construction of piers and buildings for Israel's first shipyard in Haifa.

### LONDON PLANT ENGINEERS' DINNER AND DANCE

The vital part played by plant engineers in the civil engineering industry was referred to by Sir John Howard when he addressed the London branch of the Institution of Plant Engineers at their thirteenth annual dinner and dance, held at the Waldorf Hotel recently.

Responding to Sir John, Mr. G. D. Jordan, the president-elect of the Institution, pointed out the need to increase the student and graduate membership. The right facilities and pride of membership must be provided by the Institution or young men, the plant engineers of tomorrow, would go elsewhere, he said.

Mr. G. L. Mitchell, chairman of the London branch, presided and welcomed guests at the function.

The Minister of Housing and Local Government has presented to Parliament reports of the 12 New Town Development Corporations of England and Wales. These reports (H.M.S.O. price 22s.) which are of progress in each of the towns up to the New Towns Act, 1946, give accounts made in accordance with the provisions of March 31, 1960.



# Talking of Safety

by  
**"DRAGEE"**

EVERY year we turn to the annual report of the Chief Inspector of Factories with a feeling of hopeful anticipation, which, subconsciously, we know will be short lived.

Sure enough, the figures for the building industry are as depressing as ever, and there is the Chief of all the Factory Inspectors rubbing salt into the wound with those damning, indisputable facts about our failure to maintain the slight improvement which occurred (miraculously it seems, now) the year before, or the one before that. And there we go again, reaching for our own files and wondering how much we have contributed to the common woe.

(I wonder what sort of men supply the figures for these reports? I have never met them, and I should be rather frightened to do so. They probably resemble those mystical beings, half civil-servant, have savant, we see on the telly. They have bulging foreheads and rather wild hair and they wear rimless glasses. They work silently, all the year round, sorting figures and manipulating slide rules two feet long. Or do they now use computers? Do they work in some great tiled hall in a top storey in St. James's, housing a machine which clicks and flashes as it feverishly gobbles up and digests its morning intake of data?)

Whatever the method, the results seem to come along with monotonous sameness, headed, as ever, by our arch-enemy, the Fall. Persons falling from heights, falling on the level. Falling a hundred feet then smoking and listening to the radio in hospital. Persons tripping over things on the ground and breaking their necks. Things falling on to people. Persons dropping things on to their own toes. Objects falling apparently from nowhere. Persons suddenly falling down without any explanation. Sides of excavations falling and burying people. Scaffolding tumbling down into the street: a fantastic wreckage of twisted tubing. A wall collapsing, and a frantic search under the debris and the dust. Everybody and everything obeys, without question, the law of gravity.

"Dragee," who is a practising safety engineer, would welcome subjects for discussion in this column. All names of persons mentioned in these discussions are entirely fictitious. Questions of law are expressed as the author's personal opinions and are not claimed to be authoritative.—EDITOR.

We know that a fall is dangerous: that a falling object gains energy which can destroy, so why do falls continue to happen? The nature of falls has been analysed minutely, but we have still to get down to the analysis of human attitudes.

Just for a moment let us leave the site and introduce a domestic note.

A few days ago I was involved in two minor mishaps. Both came under the heading of falls; each was slightly ludicrous, but the implications were definitely sinister.

In accordance with my usual custom after breakfast, I went into my garage, by the rear door, to take out the car. The main doors were swollen with rain, and after shooting the bolts I put my shoulder to the gap between the doors. My son, intending to be helpful, was at the outside, waiting for me to start pushing. It was not his fault that he got the doors opened a fraction of an instant before I put my weight against the panels, and he was greatly astonished to see me hurtle out, head foremost, on to my hands and knees. Fall of person on the level.

At luncheon, on the same day, I was helping to entertain a guest of some eminence. I ordered tomato soup. It arrived—in my lap. Fall of hot, sticky object.

If these homely touches are transferred, in essence, to the industrial scene, we have the makings of two serious incidents. A man (let's stop talking about the impersonal "person") loses his balance, and, in a more precarious situation, finds himself, for a brief, terrifying moment falling . . . falling . . . to a resting place far below. For that awful moment he is the loneliest man in the world. Another, bending over his task at the foot of a towering structure, hears nothing, sees nothing, of the spanner falling swiftly and silently from somewhere aloft. His fate is the more merciful but, basically, there is nothing—ultimately—to distinguish between them. The law of gravity has been fulfilled in each case.

Gravity plays a profound part in our daily lives. As toddlers we learn to keep a precarious, wavering balance on our feet. Later, we try to learn how to carry things without dropping them. Older children learn the art of climbing trees and walking on walls. Some of us learn to climb seriously for sport or to earn our living. In every case we must learn not only the

simple rules of living with gravity, but to be attentive to its power and its dangers. This is where we fail occasionally, and thus, instantly, come to grief. It is then only a matter of chance how serious will be the consequences for ourselves or those working with us. It is not only safety helmets that we need, or safety belts, or guard rails or wide platforms. When at work, we need to remember constantly that even though we may fail, gravity never does.

## CHIMNEYS FOR DOMESTIC BOILERS

Advisory Leaflet No. 50, published by M.O.W. under the title *Chimneys for Domestic Boilers*, is intended to help builders and householders to avoid the tarry stains on decorations and other troubles that may result from condensation in flues serving modern slow burning appliances.

This type of appliance, of which the ordinary domestic boiler is a common example, is designed to make efficient use of the fuel consumed; with the result that there is less waste heat left in the flue gases and they easily become chilled. This may lead to tarry matter collecting in the flue and soaking through the brickwork to spoil decorations or attack the fabric itself.

These troubles can readily be obviated by current design and construction, as the leaflet explains with the aid of sketches showing the use of flue liners and good constructional detail at the chimney head.

If an existing chimney needs attention it is important to deal with the basic cause of the trouble and not merely rebuild in a manner which invites recurrence. The leaflet treats this aspect in detail under the heading "Dealing with Existing Damage."

Copies of *Chimneys for Domestic Boilers* and of previous issues in the series are obtainable from H.M.S.O. or through booksellers at 4d. each.

## DISPOSAL OF RADIOACTIVE WASTES

A course of lectures on the disposal of wastes from the uses of radioisotopes is to be held by the Manchester College of Science and Technology on January 12 and 13.

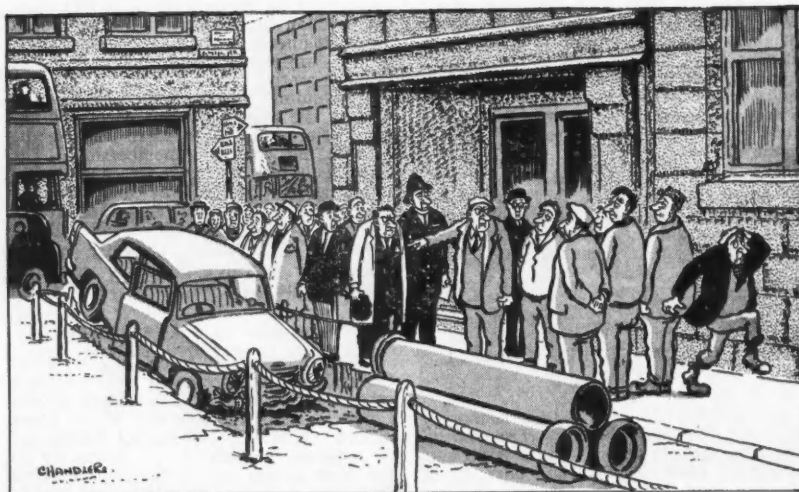
There will be seven lectures during the two days and, in addition, two films will be shown. The first day will provide an introduction to radiological protection with lectures on radioactivity, radiation effects and radiation monitoring. On the second day the lectures will cover in detail the uses of radioisotopes in the industrial and medical fields and the associated problems of liquid and solid waste disposal.

Inquiries concerning the course should be made to the Registrar of the College, Manchester, 1.

## LAING APPRENTICES' DAY

The 9th annual Apprentices' Day, for apprentices of John Laing and Son, Ltd., was held recently at the company's London headquarters. A total of £365 in incentive awards was presented to 49 apprentices from contracts in many parts of the country. Awards ranged in value from £2.10.0. for the Intermediate City and Guilds, 2nd Class (33 awards), to £25 for the Higher National Certificate (two awards).

In the course of a talk, Sir Richard Coppock, general secretary of the N.F.B.T.O., contrasted present-day conditions and opportunities in the building industry with those of his early years. An indication of the scope of these opportunities within the company was given by the chairman, Mr. W. K. Laing.



"Where's the man responsible for the warning boards?"

## NEW TECHNIQUE USED ON LONDON FLATS FOUNDATIONS

A NEW system entailing the use of a mixture of low viscosity fluids has been adopted to aid the construction of foundations for two adjacent blocks of luxury flats, near Marble Arch, London, W.1.

The site consisted of mixed alluvium ranging from sandy gravel to very fine silty sand. The provision of additional support for neighbouring roads and buildings presented a problem, as it had been decided to provide the block with accommodation for cars in a three-level basement.

Conventional methods of underpinning would have entailed propping, and then casting concrete pillars along the length of the basement wall at each stage of the excavation. This would have appreciably reduced the area of the basement available for parking.

A chemical treatment developed by the Cementation Group overcame the difficulty. Known as the TDM process, it uses low viscosity fluids, the proportions of which control the gelling time. Secondary advantages of the process were that it permitted the use of mechanical excavators, whereas the greater obstruction entailed by underpinning would have rendered this impossible.

As the site was overlain with water-logged sand and gravel, extensive pumping would have been necessary to keep it dry during excavation. The use of chemical consolidation provided the required underpinning and kept the revetment to a minimum; at the same time it sealed off the water. The total inflow of water was

in fact so small that a single pump working intermittently was adequate to keep the site dry.

Before excavation, pile holes were bored and 33ft. long steel "I" sections were dropped in, the lower 10ft. then being encased with concrete and the remainder of the hole backfilled with sand. A clay-cement grout was then injected to fill coarser zones in the ground around the perimeter of the site and this was followed by the TDM treatment, the holes for which were suitably directed to treat a 5ft. width of alluvium.

The blocks of flats, which together will cost about £750,000, will be of 13 and seven storeys respectively. Developer and contractor is Percy Bilton, Ltd. The consulting engineers are Jenkins and Potter, and the architects are Manning and Clamp.

### F.M.C.E. BURSARY SCHEME

The Federation of Manufacturers of Construction Equipment are to offer a bursary in the Graduate School in Highway and Traffic Engineering at Birmingham University. The bursary will have a value of about £550 per annum and will be open to engineers employed by municipal authorities, national departments of transport or by public works departments in Australia, India, Pakistan and the Federation of Malaya.

Details of the scheme are available from the Federation, 121 Queen Victoria Street, London, E.C.4.

## IMMINGHAM GRAVING DOCK BUILT IN 2½ YEARS

THE largest graving dock on the East Coast, south of the Tyne, has recently been completed at Immingham, Lincs., for the Humber Graving Dock and Engineering.

Sited alongside a smaller, older dock of the Humber company, the new dry-dock is 612ft. long and 98ft. wide, the

entrance being 90ft. wide. Depth of water over the sill is 26ft. 5in., or 27ft. 3in. when the water is raised by pump.

The project took 2½ years to complete and altogether the contractors, Mowlem Civil Engineering, Ltd., excavated 300,000 tons of earth, and placed 150,000 tons of concrete, both reinforced and mass.



The new dock

## NATIONAL FEDERATION'S PRESIDENTIAL NOMINATIONS

THE Council of the N.F.B.T.E. has learned with regret that for reasons of health, Mr. C. R. Setter (Bristol) will be unable to proceed to the presidency in 1961.

Mr. Setter has resigned as an officer of the Federation and this causes a vacancy to occur in the office of senior vice-president. The Council, at its meeting in London on November 23, appointed Mr. Frank Russon (Birmingham), the first junior vice-president, to be senior vice-president until the annual general meeting in February next. Mr. L. J. Holloway (London), second junior vice-president, was appointed first junior vice-president in Mr. Russon's place, and Mr. W. S. Jones (Maidenhead) was appointed second junior vice-president in Mr. Holloway's place.

The Council nominated the following to serve as officers of the Federation in 1961: President, Mr. Frank Russon; senior vice-president, Mr. L. J. Holloway; first junior vice-president, Mr. W. S. Jones; second junior vice-president, Mr. D. M. Chaston (Hoddesdon); hon. treasurer, Mr. J. Ian Robertson (Burton-on-Trent).

The ex-officio officers for 1961 will be: Mr. D. E. Woodbine Parish (immediate past-president) and Mr. L. A. Walden, chairman of the National Joint Council for the Building Industry.

## MINISTRY OF WORKS FILM SERVICE

The Technical Information Service of the Ministry of Works has issued its annual selected list of technical films for the building industry. The 128 films on the list, chosen as the most up to date on all aspects of building, include films made by the Building Research Station, for which the Ministry also acts as distributor.

The list is sub-divided into 15 sections of films, grouped according to their subjects for ready reference. All films are 16mm., most of them are sound films and more than half of them are in colour. A brief synopsis of each is given under its title. With few exceptions, the films are lent free of charge to firms, societies and educational establishments connected with building. Applications should be made to the Ministry's Offices at London Headquarters, or at Edinburgh, Cardiff, Leeds, Manchester, Reading, Birmingham and Bristol. The Regional Technical Information Officers can, if desired, advise on the choice of films and, where necessary, make arrangements for screening them.

Copies of the Selected Film List can be obtained free from Regional Technical Information Officers, or the Ministry of Works, Room 225, Lambeth Bridge House, London, S.E.1.

## NORTHWICH BY-PASS Eastern Section Opened

Lord Chesham, Joint Parliamentary Secretary, Ministry of Transport, recently opened the newly constructed 2-mile eastern section of the Northwich By-pass. This completes the 7½ miles of dual carriageway road built to eliminate the traffic bottleneck at Northwich in Cheshire.

The central section of the by-pass, 2½ miles long was built before the war. In 1958, the 1½-mile western section was constructed, and in July of this year a second carriageway was added to one mile of the existing trunk road at the western end.

The eastern section running from King Street to east of Lostock Gralam and including a bridge over the railway and one over Wade Brook, has cost £495,000.

The by-pass was designed by Cheshire County Council (county surveyor, Mr. C. G. Day, A.M.I.C.E., M.I.Mun.E., A.M.T.P.I.) and the main contractors for this final stage were Peter Prendergast and Sons (Newcastle-under-Lyme), Ltd.

# Talking of Safety

by

**"DRAGEE"**

EVERY year we turn to the annual report of the Chief Inspector of Factories with a feeling of hopeful anticipation, which, subconsciously, we know will be short lived.

Sure enough, the figures for the building industry are as depressing as ever, and there is the Chief of all the Factory Inspectors rubbing salt into the wound with those damning, indisputable facts about our failure to maintain the slight improvement which occurred (miraculously it seems, now) the year before, or the one before that. And there we go again, reaching for our own files and wondering how much we have contributed to the common woe.

(I wonder what sort of men supply the figures for these reports? I have never met them, and I should be rather frightened to do so. They probably resemble those mystical beings, half civil-servant, have savant, we see on the telly. They have bulging foreheads and rather wild hair and they wear rimless glasses. They work silently, all the year round, sorting figures and manipulating slide rules two feet long. Or do they now use computers? Do they work in some great tiled hall in a top storey in St. James's, housing a machine which clicks and flashes as it feverishly gobbles up and digests its morning intake of data?)

Whatever the method, the results seem to come along with monotonous sameness, headed, as ever, by our arch-enemy, the Fall. Persons falling from heights, falling on the level. Falling a hundred feet then smoking and listening to the radio in hospital. Persons tripping over things on the ground and breaking their necks. Things falling on to people. Persons dropping things on to their own toes. Objects falling apparently from nowhere. Persons suddenly falling down without any explanation. Sides of excavations falling and burying people. Scaffolding tumbling down into the street: a fantastic wreckage of twisted tubing. A wall collapsing, and a frantic search under the debris and the dust. Everybody and everything obeys, without question, the law of gravity.

"Dragee," who is a practising safety engineer, would welcome subjects for discussion in this column. All names of persons mentioned in these discussions are entirely fictitious. Questions of law are expressed as the author's personal opinions and are not claimed to be authoritative.—EDITOR.

We know that a fall is dangerous: that a falling object gains energy which can destroy, so why do falls continue to happen? The nature of falls has been analysed minutely, but we have still to get down to the analysis of human attitudes.

Just for a moment let us leave the site and introduce a domestic note.

A few days ago I was involved in two minor mishaps. Both came under the heading of falls; each was slightly ludicrous, but the implications were definitely sinister.

In accordance with my usual custom after breakfast, I went into my garage, by the rear door, to take out the car. The main doors were swollen with rain, and after shooting the bolts I put my shoulder to the gap between the doors. My son, intending to be helpful, was at the outside, waiting for me to start pushing. It was not his fault that he got the doors opened a fraction of an instant before I put my weight against the panels, and he was greatly astonished to see me hurtle out, head foremost, on to my hands and knees. Fall of person on the level.

At luncheon, on the same day, I was helping to entertain a guest of some eminence. I ordered tomato soup. It arrived—in my lap. Fall of hot, sticky object.

If these homely touches are transferred, in essence, to the industrial scene, we have the makings of two serious incidents. A man (let's stop talking about the impersonal "person") loses his balance, and, in a more precarious situation, finds himself, for a brief, terrifying moment falling . . . falling . . . to a resting place far below. For that awful moment he is the loneliest man in the world. Another, bending over his task at the foot of a towering structure, hears nothing, sees nothing, of the spanner falling swiftly and silently from somewhere aloft. His fate is the more merciful but, basically, there is nothing—ultimately—to distinguish between them. The law of gravity has been fulfilled in each case.

Gravity plays a profound part in our daily lives. As toddlers we learn to keep a precarious, wavering balance on our feet. Later, we try to learn how to carry things without dropping them. Older children learn the art of climbing trees and walking on walls. Some of us learn to climb seriously for sport or to earn our living. In every case we must learn not only the

simple rules of living with gravity, but to be attentive to its power and its dangers. This is where we fail occasionally, and thus, instantly, come to grief. It is then only a matter of chance how serious will be the consequences for ourselves or those working with us. It is not only safety helmets that we need, or safety belts, or guard rails or wide platforms. When at work, we need to remember constantly that even though we may fail, gravity never does.

## CHIMNEYS FOR DOMESTIC BOILERS

Advisory Leaflet No. 50, published by M.O.W. under the title *Chimneys for Domestic Boilers*, is intended to help builders and householders to avoid the tarry stains on decorations and other troubles that may result from condensation in flues serving modern slow burning appliances.

This type of appliance, of which the ordinary domestic boiler is a common example, is designed to make efficient use of the fuel consumed; with the result that there is less waste heat left in the flue gases and they easily become chilled. This may lead to tarry matter collecting in the flue and soaking through the brickwork to spoil decorations or attack the fabric itself.

These troubles can readily be obviated by current design and construction, as the leaflet explains with the aid of sketches showing the use of flue liners and good constructional detail at the chimney head.

If an existing chimney needs attention it is important to deal with the basic cause of the trouble and not merely rebuild in a manner which invites recurrence. The leaflet treats this aspect in detail under the heading "Dealing with Existing Damage."

Copies of *Chimneys for Domestic Boilers* and of previous issues in the series are obtainable from H.M.S.O. or through booksellers at 4d. each.

## DISPOSAL OF RADIOACTIVE WASTES

A course of lectures on the disposal of wastes from the uses of radioisotopes is to be held by the Manchester College of Science and Technology on January 12 and 13.

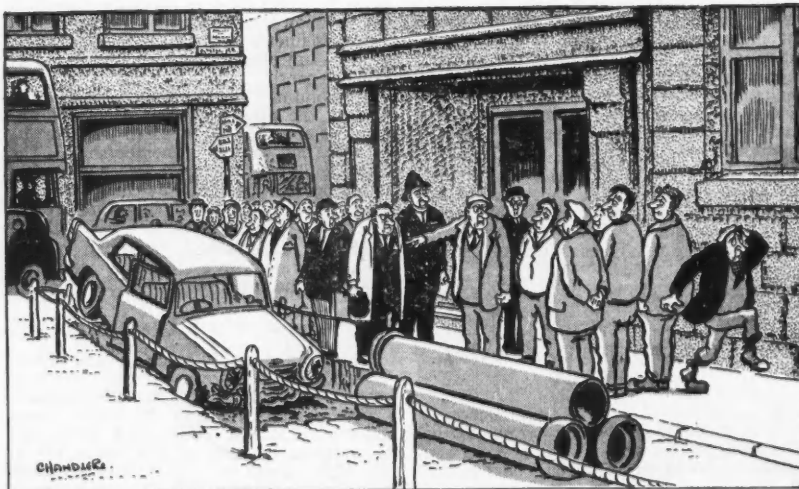
There will be seven lectures during the two days and, in addition, two films will be shown. The first day will provide an introduction to radiological protection with lectures on radioactivity, radiation effects and radiation monitoring. On the second day the lectures will cover in detail the uses of radioisotopes in the industrial and medical fields and the associated problems of liquid and solid waste disposal.

Inquiries concerning the course should be made to the Registrar of the College, Manchester, 1.

## LAING APPRENTICES' DAY

The 9th annual Apprentices' Day, for apprentices of John Laing and Son, Ltd., was held recently at the company's London headquarters. A total of £365 in incentive awards was presented to 49 apprentices from contracts in many parts of the country. Awards ranged in value from £2.10.0. for the Intermediate City and Guilds, 2nd Class (33 awards), to £25 for the Higher National Certificate (two awards).

In the course of a talk, Sir Richard Coppock, general secretary of the N.F.B.T.O., contrasted present-day conditions and opportunities in the building industry with those of his early years. An indication of the scope of these opportunities within the company was given by the chairman, Mr. W. K. Laing.



"Where's the man responsible for the warning boards?"



## NEW TECHNIQUE USED ON LONDON FLATS FOUNDATIONS

A NEW system entailing the use of a mixture of low viscosity fluids has been adopted to aid the construction of foundations for two adjacent blocks of luxury flats, near Marble Arch, London, W.1.

The site consisted of mixed alluvium ranging from sandy gravel to very fine silty sand. The provision of additional support for neighbouring roads and buildings presented a problem, as it had been decided to provide the block with accommodation for cars in a three-level basement.

Conventional methods of underpinning would have entailed propping, and then casting concrete pillars along the length of the basement wall at each stage of the excavation. This would have appreciably reduced the area of the basement available for parking.

A chemical treatment developed by the Cementation Group overcame the difficulty. Known as the TDM process, it uses low viscosity fluids, the proportions of which control the gelling time. Secondary advantages of the process were that it permitted the use of mechanical excavators, whereas the greater obstruction entailed by underpinning would have rendered this impossible.

As the site was overlain with water-logged sand and gravel, extensive pumping would have been necessary to keep it dry during excavation. The use of chemical consolidation provided the required underpinning and kept the revetment to a minimum; at the same time it sealed off the water. The total inflow of water was

in fact so small that a single pump working intermittently was adequate to keep the site dry.

Before excavation, pile holes were bored and 33ft. long steel "I" sections were dropped in, the lower 10ft. then being encased with concrete and the remainder of the hole backfilled with sand. A clay-cement grout was then injected to fill coarser zones in the ground around the perimeter of the site and this was followed by the TDM treatment, the holes for which were suitably directed to treat a 5ft. width of alluvium.

The blocks of flats, which together will cost about £750,000, will be of 13 and seven storeys respectively. Developer and contractor is Percy Bilton, Ltd. The consulting engineers are Jenkins and Potter, and the architects are Manning and Clamp.

### F.M.C.E. BURSARY SCHEME

The Federation of Manufacturers of Construction Equipment are to offer a bursary in the Graduate School in Highway and Traffic Engineering at Birmingham University. The bursary will have a value of about £550 per annum and will be open to engineers employed by municipal authorities, national departments of transport or by public works departments in Australia, India, Pakistan and the Federation of Malaya.

Details of the scheme are available from the Federation, 121 Queen Victoria Street, London, E.C.4.

## IMMINGHAM GRAVING DOCK BUILT IN 2½ YEARS

THE largest graving dock on the East Coast, south of the Tyne, has recently been completed at Immingham, Lincs., for the Humber Graving Dock and Engineering.

Sited alongside a smaller, older dock of the Humber company, the new dry-dock is 612ft. long and 98ft. wide, the

entrance being 90ft. wide. Depth of water over the sill is 26ft. 5in., or 27ft. 3in. when the water is raised by pump.

The project took 2½ years to complete and altogether the contractors, Mowlem Civil Engineering, Ltd., excavated 300,000 tons of earth, and placed 150,000 tons of concrete, both reinforced and mass.



The new dock

## NATIONAL FEDERATION'S PRESIDENTIAL NOMINATIONS

THE Council of the N.F.B.T.E. has learned with regret that for reasons of health, Mr. C. R. Setter (Bristol) will be unable to proceed to the presidency in 1961.

Mr. Setter has resigned as an officer of the Federation and this causes a vacancy to occur in the office of senior vice-president. The Council, at its meeting in London on November 23, appointed Mr. Frank Russon (Birmingham), the first junior vice-president, to be senior vice-president until the annual general meeting in February next. Mr. L. J. Holloway (London), second junior vice-president, was appointed first junior vice-president in Mr. Russon's place, and Mr. W. S. Jones (Maidenhead) was appointed second junior vice-president in Mr. Holloway's place.

The Council nominated the following to serve as officers of the Federation in 1961: President, Mr. Frank Russon; senior vice-president, Mr. L. J. Holloway; first junior vice-president, Mr. W. S. Jones; second junior vice-president, Mr. D. M. Chaston (Hoddesdon); hon. treasurer, Mr. J. Ian Robertson (Burton-on-Trent).

The ex-officio officers for 1961 will be: Mr. D. E. Woodbine Parish (immediate past-president) and Mr. L. A. Walden, chairman of the National Joint Council for the Building Industry.

## MINISTRY OF WORKS FILM SERVICE

The Technical Information Service of the Ministry of Works has issued its annual selected list of technical films for the building industry. The 128 films on the list, chosen as the most up to date on all aspects of building, include films made by the Building Research Station, for which the Ministry also acts as distributor.

The list is sub-divided into 15 sections of films, grouped according to their subjects for ready reference. All films are 16mm., most of them are sound films and more than half of them are in colour. A brief synopsis of each is given under its title. With few exceptions, the films are lent free of charge to firms, societies and educational establishments connected with building. Applications should be made to the Ministry's Offices at London Headquarters, or at Edinburgh, Cardiff, Leeds, Manchester, Reading, Birmingham and Bristol. The Regional Technical Information Officers can, if desired, advise on the choice of films and, where necessary, make arrangements for screening them.

Copies of the Selected Film List can be obtained free from Regional Technical Information Officers, or the Ministry of Works, Room 225, Lambeth Bridge House, London, S.E.1.

## NORTHWICH BY-PASS Eastern Section Opened

Lord Chesham, Joint Parliamentary Secretary, Ministry of Transport, recently opened the newly constructed 2-mile eastern section of the Northwich By-pass. This completes the 7½ miles of dual carriageway road built to eliminate the traffic bottleneck at Northwich in Cheshire.

The central section of the by-pass, 2½ miles long was built before the war. In 1958, the 1½-mile western section was constructed, and in July of this year a second carriageway was added to one mile of the existing trunk road at the western end.

The eastern section running from King Street to east of Lostock Gralam and including a bridge over the railway and one over Wade Brook, has cost £495,000.

The by-pass was designed by Cheshire County Council (county surveyor, Mr. C. G. Day, A.M.I.C.E., M.I.Mun.E., A.M.T.P.I.) and the main contractors for this final stage were Peter Prendergast and Sons (Newcastle-under-Lyme), Ltd.

## PRESTRESSED DEVELOPMENT GROUP VISIT HOLLAND

A PARTY of 36 members and guests of the Prestressed Concrete Development Group recently returned to London following a two-day visit to Holland.

The party flew to Rotterdam Airport and inspected the works of N. V. Schokindustrie, a company associated with Shockcrete Products, Ltd., of Hoddesdon, Herts. The factory, which is situated at Zwijndrecht near Rotterdam, specialises in the manufacture of prestressed concrete piles.

After an over-night stay in Rotterdam a visit was made to a prestressed concrete pier under construction at Scheveningen. The pier, which will be completed in time for the 1961 season, is supported on prestressed concrete piles of up to 70ft. in length and will be 1,200ft. long with three heads carrying a restaurant, a casino and a dance hall.

At a luncheon, members of the party were guests of S.T.U.V.O., the Dutch Prestressed Concrete Development Group, and were later conducted by members of the S.T.U.V.O. Committee on a tour of prestressed concrete viaducts, bridges and roads in and around the City of Amsterdam.

One of the most interesting developments seen during the day was a prestressed concrete section of the E.10 road between Amsterdam and Rotterdam. This particular section has a length of 1,200yd. and a horizontal curve with a radius of 1,640yd. The road is pretensioned in one operation using 36 strands of high tensile steel wire, each of 7 mm diameter.

The party was entertained to tea by the City of Amsterdam before returning from Schiphol Airport to London.

## FARROW-CUBITTS EXTEND TO NIGERIA

Formation of a new company in Nigeria is announced by Howard Farrow, Ltd., and Holland & Hannen and Cubitts, Ltd. Farrow-Cubitts and Associates (Nigeria), Ltd., are linked up with Dijs-Trocen-Valsesia and Co., Ltd., of Lagos, and will undertake civil engineering and building projects of every kind throughout Nigeria.

Mr. Stanley Farrow is chairman of the new company, and Mr. E. R. Hole, managing director of Holland & Hannen and Cubitts, Ltd., is a director together with Mr. E. F. Schofield and Mr. M. A. Giachetti of Impresa Giachetti of Turin, who have also joined the group.

## N.F.B.T.E.'s TECHNICAL ENQUIRY BUREAU

THE National Federation of Building Trades Employers has decided to take an initial step towards the establishment of its own technical information service by inaugurating a Technical Inquiry Bureau.

The purpose of the Bureau will be to give guidance to N.F.B.T.E. members on individual technical problems, and to deal primarily with inquiries relating to materials, including the diagnosis and cure of defects that develop during or after the completion of a contract.

Although the Bureau will not normally undertake site inspections, such inspections will be carried out in those cases where it is considered that an examination of the problem involved is likely to be of value to N.F.B.T.E. membership as a whole.

## BRITISH COST ENGINEERS GROUP

A British Group of the American Association of Cost Engineers has been established to promote, as one of its aims, the development of standards methods of cost estimation and cost control.

The governing body of the British group consists at present of four members: J. H. Herbert (Kellogg International Corporation, London), chairman; K. M. Curwen (Albright and Wilson Manufacturing, Ltd., Birmingham), deputy chairman; T. B. Woods (Humphreys and Glasgow, Ltd., London), secretary; G. F. Kirby (Constructors John Brown, Ltd., London), treasurer.

The group is already able to provide members with a library and reference service, and a series of regular meetings are proposed. The first of these will take place in London, on Monday December 12. A technical paper will be presented, followed by a discussion.

## PLAN FOR HAMPSTEAD CIVIC CENTRE

Hampstead B.C. have been recommended to approve Sir Basil Spence's design for the first stage of a proposed new civic centre at Swiss Cottage. This stage is estimated to cost about £1m., and includes swimming baths, for which Government loan sanction has been granted, and a library, for which loan application has been made.

The scheme has yet to be officially approved by the L.C.C.

## PRE-APPRENTICESHIP COURSES IN BUILDING

AFTER considering those recommendations of the Carr and Crowther Committees which relate to craft apprenticeship and training for the building industry, the National Joint Apprenticeship Board for the Building Industry has decided that a wider development of pre-apprenticeship courses would contribute much to the attainment of the objectives of those Committees.

To that end the Board has issued a memorandum to its joint apprenticeship committees urging that steps should be taken, in full collaboration with the education authorities and technical colleges, to provide wherever it is found practicable, full-time pre-apprenticeship courses for intending building apprentices.

Such courses will (a) provide school-leavers with an extended period of general education coupled with a sound practical introduction to building; (b) assist the industry in ensuring that boys recruited to craft apprenticeships are properly selected, are of the right calibre and are properly distributed between the various trades; and (c) assist technical colleges in their provision of facilities for building craft courses by reducing the risk of wastage at later stages.

These pre-apprenticeship courses are not intended to take the place of the normal system of recruitment, but they should provide a valuable supplement to it. The courses are primarily designed for boys leaving school at 15 years of age or shortly afterwards and as they will normally start in September each year, the Board has stressed the importance of encouraging all boys selected for a course to remain at school until the July leaving date.

Boys who satisfactorily complete a course will have the normal period of indentured apprenticeship reduced by one year, and furthermore, there will be a reasonable guarantee that they will be placed in an indentured apprenticeship.

The Ministry of Education has informed the Board that it is drawing the attention of local education authorities to the proposals and inviting their co-operation with the Industry's joint apprenticeship committees in providing facilities for courses wherever desired and practicable.

(Concluded from page 1326)

a 24-month construction period with tenders invited in the late autumn, accepted in January and work started in March.

## Conclusions

This Paper can only refer to a few of the principal lessons learned and many of these are common to both consultant and county surveyor. In the preparation of these large projects, however, lessons are being learned every day and to the consultant new ground is constantly being explored in his effort to broaden his experience and to perfect his organisation of drawing office and site operations. Even the preparation of contract drawings is a major operation in itself and the regular and systematic presentation of information on them can be of distinct assistance to the contractors when they are using the short time available to them for tendering.

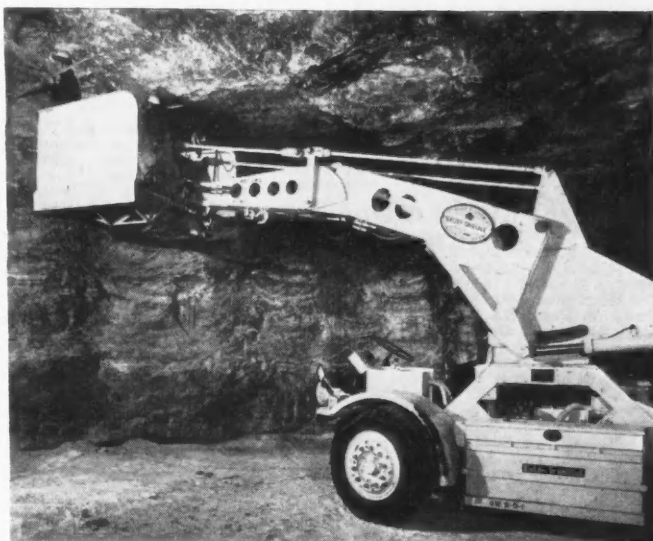
In conclusion, it is a reasonable assumption that the next 10 years will see the completion of the first phase of construction of a national network of inter-city roads. The design and construction of urban motor roads, which will be a more difficult and costly operation, is a problem which should be tackled at an early date. Needless to say, the highway engineers of this country (whether they be Ministry, county, consultant or contractor) benefiting from the lessons now being learned, are competent to meet the challenge of this new and exciting problem.

This model of the giant Marion Type 5323 Stripping Shovel was seen on the stand of Babcock and Wilcox, Ltd., and John Blackwood Hodge and Co., Ltd., at the recent Public Works Exhibition. As reported in *The Contract Journal* on July 21 last, it is being supplied to the United Steel Company for work on the opencast iron ore mine at Colsterworth, near Grantham, Lincs. The machine will operate a 17 cu. yd. dipper on a 145ft. boom and will have a maximum cutting radius of 148ft. 6in. and a dumping height of 104ft. 3in. It has been designed by the Marion Power Shovel Company of Marion, Ohio. Part of the machine will be constructed by the designers and part by Babcock and Wilcox, Ltd., at their Dalmeir Works in Scotland. All assembly on site will be undertaken by the suppliers, Blackwood Hodge.



Trade and Company News

## MODERNISATION OF BRITAIN'S ONLY ROCK SALT MINE



Holes being charged with explosives

**MAJOR** extensions to the Meadow Bank Rock Salt Mine, Winsford, Cheshire, which were opened recently for Imperial Chemical Industries, Ltd., by the Minister of Transport, have increased the productive capacity of the mine to 300,000 tons per annum.

Meadow Bank is the only rock salt mine in the country, and the trebling of its productive capacity, which has also involved extensive modernisation, has been necessitated by the evergrowing demand for rock salt to clear roads of snow and ice.

### New Plant

The main features of the scheme, which has cost approximately £500,000, include the installation of an underground primary crushing plant, a skip system of elevating salt to the surface, and the introduction of diesel dumpers for transportation of salt in the mine. In addition, an entirely new system of forced ventilation has been installed. On the surface a second, third and fourth stage crushing and screening plant has been built, together with a new bagging plant and an overhead belt conveyor system to outside storage sites.

More than 100 years old, the mine is now mechanised all the way from the underground working face to the dispatch points on the surface. Undercutting, the first operation in the process, is performed by an Anderson-Boyes short-wall cutter, which gives a 10ft.-deep cut at floor level along the face of the rock salt.

On the working face shotholes are drilled to a fixed pattern by a Taylor-Hurd mobile electric rotary drill, which drills a hole 1.11/16in. in diameter and 10ft. deep in about two minutes. This machine can, from one position, drill a hole in any direction over an area 24ft. wide by 26ft. high.

After drilling, the shot firer charges the holes with explosive from a hydraulically operated Taylor-Hurd mobile platform. The explosive is electrically detonated, and normally about 600 tons of rock salt are brought down in one firing.

When a round of shots has been fired, the rock salt brought down is picked up from the face by a Joy heavy-duty gathering-arm loader, and loaded into the diesel dumpers.

### Diesel Dumpers

These Foden dumpers carry approximately eight tons each of rough rock salt, and run between the working face along the main motor road in the mine to the primary crusher area, where the rough rock salt is tipped into a Pegson-

(Concluded on page 1353)



Taylor-Hurd mobile electric rotary drill drilling shotholes



Foden diesel dumpers operating along main motor road



## Trade and Company News

## NEW COMPANIES

The undermentioned particulars of new companies recently registered are taken from the daily register compiled by Jordan and Sons, Ltd., company registration agents, 116 Chancery Lane, London, W.C.2:—

Medco (Constructions), Ltd., 26a Peckham Rye, S.E.15, builders. £2,000. Directors: Robt. J. Orsman, 19a Ryedale, S.E.22; Ronald L. Manwaring, 10 Honor Oak Mansions, Underhill Road, S.E.22.

Burchett and Co., Ltd., builders. £100. Directors: Frank T. Burchett and Clara Burchett, 52 Rylett Road, W.12; Clifford J. Saunders, 90 Grange Road, W.5.

Walter Hill (Beech House), Ltd., Beech House, Beech Grove, Wellington, Som., builders. £1,000. Directors: Walter J. F. Hill and Mrs. Clarice E. Hill, Beech House, Beech Grove, Wellington, Som.

Collip Plant Services, Ltd., 19 Broomhill Road, Orpington, Kent, excavators, bulldozers, etc. £100. Directors: Arthur G. Collip and Mrs. Lillian C. Collip, 19 Broomhill Road, Orpington, Kent.

Hurstwood (Construction), Ltd., builders. £500. Directors: Paul W. Hurst and Pauline F. Hurst, 43 Greystoke Avenue, Pinner, Middlesex; Michael E. E. Wood and Yvonne G. Wood, Longreach, Jordans, Bucks.

J. and R. Hollis, Ltd., builders. £100. Directors: Reginald W. Hollis, Stanley A. Mason and Sidney A. Pearson, addresses not stated. Subscribers: P. O. Ansell (commercial manager) and George A. Corderoy (assistant manager), 116 Chancery Lane, W.C.2.

Foreland Construction Co., Ltd., £3,000. Directors: David J. Porter, 8 Hayes Chase, West Wickham, Kent; Wm. P. Swann, 62 Sandford Road, Bromley, Kent.

Speedwell Builders, Ltd., £1,000. Directors: Harold E. Curtis and Mrs. Maureen I. Curtis, 16 Duncombe Road, Speedwell, Bristol, 5.

Cedarline, Ltd., 69 Talbot Street, Nottingham, builders. £2,000. Directors: Wm. A. Johnstone, The Gables, East Leake, Leics.; Florence E. Clarke, 231 Oakdale Road, Carlton, Notts.

W. J. Law and Sons (Contractors), Ltd., 123 Woodstock Lane North, Acocks Green, Birmingham, 27, £5,000. Directors: William J. Law, William H. Law, John J. Law and Elsie Law, 17 Hanbury Croft, Acocks Green, Birmingham, 27.

J. H. Walker and Son (Aspley Guise), Ltd., 147 Blethley Road, Blethley, Bucks., builders. £10,000. Directors: Joseph H. Walker and Mrs. Lott A. Walker, Umfali House, School Lane, Aspley Guise, Beds.

H. W. Barnes and Son (Southern), Ltd., 6 Gibbon Road, Nunhead, S.E.15, builders. £100. Directors: Henry W. R. Barnes and Henry W. Barnes, Junr., 100 Gipsy Road, Welling, Kent; Allan E. Isaacs, 19 Queens Gardens, Hendon, N.W.4.

G.P.K. (Builders), Ltd., 17 Gildredge Road, Eastbourne. £100. Directors: Harry Goldsmith, 82 Wordsworth Street, Hove, 3; Alfred G. Parsons, 17 Manor Road, Hampden Park, Eastbourne; Ernest E. Keridge, 6 Watling Road, Southwick, Sussex.

T. J. Ebdon and Co., Ltd., Woolbrook, Sidmouth, builders. £100. Directors: Thomas J. Ebdon and Mrs. E. E. Ebdon, Nairn, Yarde Hill Orchard, Sidmouth.

Twylford Plant Hire Co., Ltd., Jacey House, The Lansdowne, Bournemouth. £6,000. Directors: William J. Unwin, 33 St. Peter Street, Tiverton, Devon; Leonard C. Boorman, Pentire, Mayfair, Post Hill, Tiverton; Margaret E. Boorman, Cecily N. Unwin, Charles F. Unwin and Kathleen E. Unwin.

Morepass Builders, Ltd., Room 713 Imperial House, Kingsway, W.C.2. £100. Directors to be appointed by subscribers. Subscribers: Michael Claff, 1 Southfields, N.W.4 (accountant); Shirley Hart, 57 Rodney Court, Maida Vale, W.9 (secretary).

Milsom Bros., 56a High Street Uxbridge, Middx., builders. £2,000. Directors: Norman E. Milsom, 20 Dickens Avenue, Hillingdon, Middx.; Bernard E. Milsom, 2 Chapter Close, Herries Road, Hillingdon, Middx.; Maurice C. W. Milsom, 1 Ash Green, New Denham, Bucks.

R. C. Comb (Building Contractors), Ltd., 40 Esplanade, Whitley Bay, Northumb. £10,000. Directors: Ralph C. Comb and Mrs. Margaret Comb, 12 Briere, Whitley Bay.

William Morgan (Builders), Ltd., Rectory Cottage, Llangattock, Brecon. £100. Directors: William Morgan, Rectory Cottage, Llangattock, Brecon; George S. Cronin, 77 Beulah Road, Rhiwbina, Glam.

P. Carroll (Bradford), Ltd., 34 Manchester Road, Bradford, 5, builders. £100. Directors: Patricia Carroll and Patricia M. Carroll, Greensleeves, Old Hollings Hill, Guiseley.

S. E. N. and W. Builders, Ltd., The Avenue, High Street, Eltham. £500. Directors: James G. K. Lewis, The Avenue, High Street, Eltham; Ronald J. G. Lewis, 189 Grangefield Road, Eltham; Clifford D. K. Lewis, 153 Freshfield Road, Brighton.

Hutchins and Foster, Ltd., builders. £100. Permanent directors: Albert J. Hutchins, 44 Borough Road, Dunstable, Beds.; John H. F. Foster, 16 Kimberley, Letchworth, Herts.

Stephen Morgans and Co., Ltd., 59 Eversley Road, Setty, Swansea, builders. £5,000. Directors: Idwal G. Davies and Mrs. Florence M. Davies, Cefn Bryn, Rhyddwen Road, Craig-cefn-parc, Swansea.

Wyndham (Builders), Ltd., 29 Linton Road, Barking, Essex. £100. Directors: Donald Davis, 94 Firs Lane, Winchmore Hill, N.21; Gordon Wyndham Hands, Fontainebleau, The Green, Southgate, N.14; Alfred W. Scales and Wm. J. Tibble.

Lewisham Decorators (Contractors), Ltd., 54 Minard Road, S.E.6. £100. Directors: Alan Waterman, 21 The Ridgeway, Chingford, E.4; John Haynes, 54 Minard Road, S.E.6; Mrs. Edith M. Hanson, 70 Park Avenue, Bromley, Kent.

L. E. Ellis and Sons (Building Contractors), Ltd., 77 Portland Place, W.1. £3,000. Directors: John B. Ellis and David M. Ellis, 29 Bradenham Road, Hayes, Middx.

Beecham Contractors, Ltd., 25 Falmer Road, Walthamstow, E.17, builders. £100. Director: Robt. J. Beecham, 25 Falmer Road, E.17.

Marshall and Parsons, Ltd., 1111 London Road, Leigh-on-Sea, builders and contractors. £2,000. Directors: Allan F. Marshall, 29 Templewood Road, Thundersley, Essex; William E. Parsons, 16 Hazelwood Grove, Leigh-on-Sea.

Hitchens and Deakin, builders. £100. Directors: Iver N. Deakin, Thornfield, Sandown Park, Tunbridge Wells; Anthony Hitchens, 49 Tregunther Road, Falmouth, Cornwall; Elizabeth J. Deakin, Iver N. Deakin, Senr., and Edgar C. Knuckey.

S. Talbot and Son, Ltd., Conway, Stafford Road, Newport, Salop, builders. £1,000. Directors: Thos. Talbot, Conway, Stafford Road, Newport, Salop; Thos. N. Talbot, 48 Stafford Road, Newport, Salop; Gilbert C. Talbot and Graham N. Talbot.

D. W. Fletcher (Plant Hire), Ltd., 7 Queen Anne Terrace, Plymouth. £100. Directors: Douglas W. Fletcher, Twin Gables, Sherford Crescent, Elburton, Plymouth.

G. Bagshaw, Ltd., Hill Top, Birkby Lane, Bailiff Bridge, Brighouse, builders. £1,000. Directors: George Bagshaw, Copley Cottage, East Bierley, Bradford; Wm. A. Sutton, Hill Top Birkby Lane, Bailiff Bridge, Brighouse.

Cadman and Sanderson, Ltd., 30 Thayer Street, Manchester Square, W.1, builders. £100. Directors: Gerald R. Cadman, 24 Warren Road, N.W.2; Ronald A. Sanderson, 718 North Circular Road, Neasden, N.W.2.

R. Walker Russell (Contractors), Ltd., £2,000. Directors: Robert W. R. Harrison and Freda M. Harrison, 38 Devonshire Park Road, Stockport, Ches.

W. and E. Builders, 1807 London Road, Leigh-on-Sea. £1,000. Directors: Arthur E. Walker, 24 Sutherland Boulevard, Leigh-on-Sea; Edward Elliott, 24 Eastwood Old Road, Southend.

George Wimpey and Co., Ltd., have moved from 37 Drumsheugh Gardens, Edinburgh, 3, to Barnton Grove, Edinburgh, 4. Tel.: Davidson's Mains 76723 (12 lines).

The Manchester area address of Acrow (Engineers), Ltd., is Heaton Mersey Sidings, Huntsmans Brow, Stockport. Tel: Stockport 7501.

Roads Reconstruction (1934), Ltd., have moved their London office to Stockley Bridge, Chapel Lane, West Drayton, Middx.

New brochures describing their range of protective clothing and duffle coats have been published by Jelteck, Ltd., Green Lane, Hounslow, Middx.

A new branch at 83 St. Giles Street, Northampton, has been opened by The Brit's Wagon Co., Ltd.

Details of the Circomatic seam-welding machine are given in a new brochure published by Rockwell, Ltd., Commerce Way, Croydon, Surrey.

Mercantile Credit Co., Ltd., have opened new branches at 30 Joy Street, Barnstable (Tel. Barnstable 4117/8), and at 9 Quay Street, Carmarthen (Tel. Carmarthen 6784/5).

Arthur Scull and Son, Ltd., announce that their London branch has moved to Finwell House, Finsbury Square, E.C.2. Tel: Monarch 5521 (8 lines).

A new PVC finishing coating material in three grades that permits spray-brushing, stoving and air drying, and will adhere strongly to wood, brick, concrete, asbestos, in addition to all metals, is announced by the Plasinter Co., Ltd., Wednesbury, Staffs.

Birfield, Ltd., have changed their address to 20 Hill Street, London, W.1. Tel: Grosvenor 7090.

A leaflet describing their Red Cedar prefabricated buildings has been produced by J. E. Lesser and Sons, Ltd., Green Lane, Hounslow, Middx.

## TRADE NEWS IN BRIEF

Bowmaker, Ltd., have opened new branch offices at 39a Princes Street, Yeovil (Tel: Yeovil 1727), 19 Milsom Street, Bath (Tel: Bath 63006) and 6 Hunter Street, Kirkcaldy (Tel: Kirkcaldy 4810). The resident representatives are C. R. Parini, G. Gardiner and R. Duncan, respectively. The company's Carlisle branch is now operating from Bowmaker House, 4 Brunswick Street (Tel: Carlisle 22258/9).

The Electrical Development Association, 2 Savoy Hill, London, W.C.2, have announced two new publications—"Notes on the Construction and Finish of Floors that are to be Electrically Warmed" and "Electric Floor Heating: Questions and Answers."

Austen Shrivies, Ltd., announce the opening of new offices and yard at Station Road, Betchworth, Surrey (Tel: Betchworth 3601/2).

E. Boydell and Co., Ltd., announce that the Muir-Hill hydraulic loaders, Models RD2, FD2 and FD4, and the 2WL loader with Sherman trencher, are now available for export. The new address of Grocock and Day (Plant Hire), Ltd., is Rowsley Street, Leicester (Tel: Leicester 36566-3 lines).

Joseph Thompson and Co. (Liverpool), Ltd., announce that the address of their offices and works is now Wakefield Road (Dunnings Bridge Road), Netherton, Liverpool, 10. Tel: Aintree 6262 (four lines).

All office departments of the Tractor Division, Ford Motor Co., Ltd., have moved to new accommodation at 1 Ley Street, Ilford, Essex. Tel: Ilford 3388.

Vokes, Ltd., the filtration and silencing engineers, have changed their name to Vokes Group, Ltd., and a new subsidiary company has been incorporated to take over the business and trading of Vokes, Ltd., as previously.

The offices of the Acoustics Department, Armstrong Cork Co., Ltd., are now situated at 11a Carlisle Road, Colindale, London, N.W.9. Tel: Colindale 9744.

Track Supplies and Services, Ltd., have moved their head office to Haversham Bank Sidings, Wolverton, Bucks. Tel: Wolverton 2242.

Negretti and Zambra, Ltd., have opened a branch at 38 Dean Street, Newcastle upon Tyne.

Millars' Machinery Co., Ltd., have moved their service depot at St. Michael's Street, Paddington, and technical service division and Wellpoint equipment department at High Street, Hounslow, to Spring Road, Feltham, Middx. Tel: Feltham 7241.

Two trade brochures, describing the Manwood Miller Capillary Air Washer and Multitube Raystrip, have been published by Copperad, Ltd., Colnbrook, Bucks.

Head, Wrightson and Co., Ltd., Ship House, 20 Buckingham Gate, London, S.W.1, have produced two leaflets covering the company's deaeration equipment and giving details of their filtration plant.

A. S. Clark (Worcester), Ltd., have moved to 63 Broad Street, Worcester, from 33 Foregate Street. Tel: Worcester 24661.

Details of cranes on crawlers for loads up to 62 tons are given in a leaflet published by NCK-Rapier, Ltd., 32 Victoria Street, London, S.W.1. Another leaflet describes the 545 Sprawler which lifts up to 40 tons with outriggers.

The Sherman Trencher attachment, which is manufactured in this country under licence by Bray Construction Equipment, Ltd., Feltham, Middx., is described and illustrated in a new leaflet.

## Trade and Company News

WARMWELL SAND PRODUCING PLANT  
INSTALLATION

PROVIDING an output of 45-50 tons per hour, an additional sand producing plant has recently been installed at the Warmwell Sand and Gravel Pits, Warmwell, Dorset. This addition has been necessitated by the demand for Warmwell sand for both building work in the area and construction at the Winfrith Atomic Energy Establishment.

Ltd., of Taunton, and incorporates over-side suction pipe, outboard trunnion with derrick for lifting, and separate engine driven hoisting winch. The pump is a 6in. centrifugal sand and gravel pump designed for an output of 740/800 gallons of sand and water mixture per minute against a total head of 90ft. to allow for the additional power required as the horizontal distance of the delivery pipe extends. The output is 50 tons per hour and the pump

is direct coupled to an 80 b.h.p. six-cylinder cold starting diesel engine with radiator cooling, clutch and electric self-starter.

The screening, washing and dewatering equipment is a Hardy and Padmore "Sandwinner" patented submerged screen unit which incorporates a patented vibrating table fitted to the elevator which increases the dewatering action of the buckets and results in the sand being discharged into the storage bins in a comparatively dry state. Particles of sand too large to pass through the mesh of the screen, together with any water present in the material, is discharged at the end of the screen through a chute into a small reject storage hopper. This plant is driven by one 7½-h.p. totally enclosed electric motor with a built-in reduction gear.

## Rapid Loading

Sand is discharged from the screen and delivered through a swivel chute to twin Blaw Knox 22ft. diameter circular steel storage bins each of 200 cu. yd. capacity which can discharge the sand through clamshell gates at rates up to 10 tons per

minute, directly into wagons. This rapid rate of loading speeds up wagon turnaround and is controlled by one man at ground level through an easily operated hand lever. The rigid design of the bin supporting structure allows ample clearance for vehicles of all sizes to be loaded below the discharge gates.

INDIRECT-FIRED SPACE  
HEATERS

A range of mobile indirect-fired oil heaters, developed in America, is now being sold in this country by Contractors and Industrial Equipment, Ltd., 31 Birmingham Street, Oldbury, Birmingham.

The efficiency of these Silent Glow heaters is achieved by a dual combustion system coupled with a form of ducting which permits combustion gases to be piped away leaving a large volume of heated clean air to be blown where required. All models are self-contained and draw their oil supply from a suitably situated oil storage tank.

Action is completely automatic from the turn of the starter switch to the shut down when the fuel reaches its minimum level. The built-in pump draws the fuel from the storage tank and forces it at a pressure of about 85lb. per sq. in. through the nozzle of the burner where it is atomised into a fine mist. It is then mixed with a controlled volume of air and ignited by the ignition electrodes; the resulting combustion takes the form of a short soft flame which strikes into the interior of the heat exchanger. The clean hot air is directed by the blower unit either into standard ducting systems or wherever required.

All models are fitted with thermostatically controlled safety cut outs independent of the main thermostat control unit. Model K.100 has an additional thermostatic control enabling pre-set temperatures to be maintained.

ALUMINIUM WINDOW  
VENTILATOR

Greenwood and Airvac Ventilating Co., Ltd., Beacon House, Kingsway, London, W.C.2, have introduced a new Permavent horizontal window ventilator in extruded aluminium for houses and flats. Made in lengths of up to 6ft., it is suitable for both internal and external glazing, being fitted within the glazing rebate at the top of metal or timber windows and doors.

(Concluded from page 1351)

Telsmith primary gyratory crusher which reduces the material to medium-sized pieces.

The primary crushed rock salt is then conveyed to an 18-ton capacity skip shaft surge bunker, which temporarily absorbs the flow of salt from the conveyor should there be a hold-up in the skip elevating system to the surface.

From the surge bunker, the material is fed into measuring pockets where it is weighed prior to being fed into 2½-ton capacity aluminium skips and elevated to the surface.

On the surface the skips discharge the salt onto a conveyor belt which takes it to the main crushing plant, where it is finally crushed and screened into the required grades.

After screening, the salt is specially treated to prevent it from caking, and is then fed into silos from which it can be bagged or loaded direct into road or rail vehicles.

Ground rock salt from Meadow Bank has a number of applications, but the biggest demand by far is for its use in clearing roads of ice and snow. Two important properties of the material are that it is non-caking and can be stored in the open, even in wet weather, without cover being necessary.



Two 22ft. diameter circular storage bins fed by "Sandwinner" machine

The plant comprises a pontoon-mounted suction pump delivering through approximately 350-400ft. of 6in. piping to a screening, washing and dewatering unit mounted above twin 22ft. diameter steel storage bins each having a 200 cu. yd. storage capacity.

## Floating Pontoon

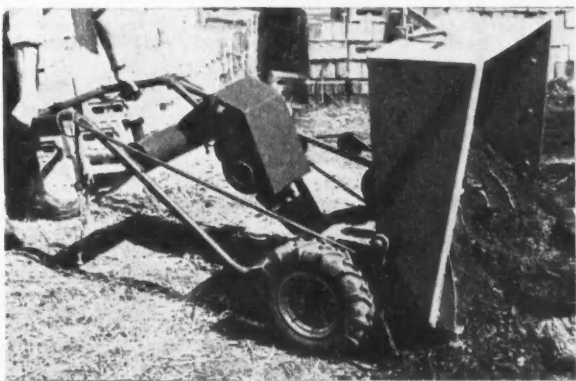
The floating pontoon was supplied as a complete unit by Easton and Johnson,

## PEDESTRIAN CONTROLLED DUMPER

A PEDESTRIAN controlled transporter with a 6 cu. ft. struck capacity skip is now being sold by Road Machines (Drayton), Ltd., West Drayton, Middlesex. It may be tipped to give an instantaneous discharge and is self loaded by being steered straight into the pile. Gradients of 1:3 can be climbed with the machine laden or unladen.

The power unit is an Aspera 3½ b.h.p. air-cooled, four-stroke petrol engine, and drive is by B-section cog belt, driven through a Hoover Dri-Draulic

torque converter, with a centrifugal clutch. The gearbox is of the spur gear type compound train, constant mesh with a reduction of 21.9:1, employing a dog type clutch.



The Roadmac Loadadump

## News from the Boardroom

**OFFICIAL** restraints cutting back domestic expenditure on industrial re-equipment are an economy the country can ill-afford, according to **SIR IVAN A. R. STEDEFORD, K.B.E.**, chairman of Tube Investments, Ltd.

In his statement to be presented at the company's annual general meeting, he says: "Technology does not pause for economic recovery, nor indeed for the funds with which to exploit it. Last year it can fortunately be shown that spending on new plant and equipment in this country rose, but it is still barely higher than in 1956, over four years ago."

"No one can say whether we shall see before this decade is out, German, Italian and French goods entering our home market duty free; or alternatively, whether we shall be confronted with growing barriers around the Common Market community, while its members attack our markets with their combined strength. Clearly we must be prepared for either alternative."

Whatever happens, Sir Ivan says British industry should strive to make pace or, at the worst, must keep up with events. He believes our prospects fundamentally depend on the speed and success with which technology and research can be harnessed to increase output and productivity, and to lower production costs; and this largely depends on the scale and quality of new capital investment.

**HAVING** decided that they can no longer depend on the manufacture of rolling stock as their principal business the directors of the Gloucester Railway Carriage and Wagon Co., Ltd., have been looking around for other lines to manufacture. They have made a financial investment in Winget, Ltd., and will execute manufacturing orders which are in excess of the production capacity of the Winget group of companies, because of the growing demand for their products. "There is every indication of increased benefits to both Groups under this arrangement and the oppor-

tunity for further expanding the range of products," **GENERAL SIR WILLIAM MORGAN**, chairman of Gloucester Railway Carriage and Wagon Company said at the company's recent annual general meeting.

**THE** contractors' plant department of Stothert and Pitt continues to expand. **MR. R. A. RIDDLES, C.B.E.**, chairman of the company, said at the recent annual general meeting that vibrating roller sales had reached a new peak and over 50 of these were in use on the M.I. in addition to a large number of their standard concrete mixers. Truck mixer sales were increasing and they had introduced a new range of batch weigh plants for feeding them.

The company's new dockside crane was the most important item in their present crane production programme. They had received orders for no less than 130 cranes of this type since July 1, 1960.

**MR. RIDDLES** reported that trading profit for the year ended June 30 last was satisfactory and a new sales record was achieved. Profits increased by £106,813 to £1,123,790.

**THE** experience of Thomas Smith and Sons (Rodley), Ltd., is that trading is much more difficult than it was some years ago, as competition is very much keener, resulting in narrower profit margins. The company is experiencing a substantial demand for excavators, so much so that it is having to quote longer delivery periods, but orders for cranes are decreasing, so that the prospects for the excavator side during the coming year are quite healthy but there is room for considerable improvement on the crane side. Many new design features are being incorporated in existing models of both cranes and excavators and a completely new design of a 6-ton mobile crane has been developed and will be put on the market in a few months.

This was the news given to members of Thos. W. Ward, Ltd., by the Chairman,

**MR. H. W. SECKER**, at the annual general meeting held recently. He said the crane works of John Smith (Keighley), Ltd., had maintained turnover near the level of 1959, but the effect of severe competition and reduced profit margins was revealed in lower profits. The company had a good order book but difficulty was being experienced in obtaining the required labour supply. Negotiations were proceeding for part manufacture of Smith Cranes in India.

**MR. SECKER** reported that the Group turnover figure of £49½ million was a record, being nearly £1 million higher than the previous best in 1957. Group profit before tax of £2,820,414 was also a record, being nearly £45,000 higher than in the previous year.

**THE** volume of work in hand continues at a figure comparable with that of last year and I am pleased to say that current returns are generally consistent with that level of business, states **MR. G. HARRIS**, chairman and managing director of A. Monk and Co., Ltd., in his statement to be presented at the annual general meeting to be held on December 15. The profits for the year to February 29, 1960, before taxation were £603,443, an increase of approximately £45,000 over the previous year.

Progress on their contracts Nos. 1 and 2 of the Bristol-Birmingham Motorway are referred to by **MR. HARRIS**. This job proceeded excellently as far as the excavation, formation of embankments and bridge construction are concerned, until August last, but since then has been adversely affected by the excessive rainfall which has been prevalent throughout the whole of the West Country. With the exception of the drainage works and general bridge construction which is proceeding apace on all the 66 bridges comprised in the contract, it would seem advisable that work should be somewhat restricted during the winter months, he states. On the Birmingham/Preston Motorway the construction of the new Gathurst Viaduct has reached a stage where all foundations and piers are now approaching completion and work is commencing on the steelwork comprising the actual bridge structure.

## FOR THE DIARY

### Dec. 8

Meeting of the Institute of Sewage Purification, Friends House, Euston Road, London, N.W.1, 6.30 p.m. Paper: "Composition of Sewage and Sewage Effluents," by H. A. Painter, M. Viney and A. Bywaters.

Annual dinner and dance of the Midlands branch of the Contractors Mechanical Plant Engineers, Town Hall, Sutton Coldfield.

Meeting of the Institution of Structural Engineers at 11 Upper Belgrave Street, London, S.W.1, at 6 p.m. "The Structural Engineer in the Coal Industry," by C. A. C. Davies, M.I.C.E. This meeting was originally scheduled for Dec. 13. The Institution announce that Dec. 15 meeting has been cancelled.

Traffic Engineering Study Group meeting at the Institution of Civil Engineers, Great George Street, London, S.W.1. Informal discussion on parking control, introduced by J. T. Duff.

### Dec. 10

Annual dinner of Region No. 4 (Wales) of the Building Surveyors' Institute at Park Hotel, Cardiff, at 8 p.m.

### Dec. 12

Meeting of the London and Home Counties Area of the Building Surveyors' Institute at the Marquis of Granby, 142 Shaftesbury Avenue, London, W.C.2, at 7 p.m. Talk: "The Difficulties of Job Organisation in a Small Works Department", by P. G. Axford.

### Dec. 13

Meeting of the Illuminating Engineering Society at the Federation of British Industries, 21 Tothill Street, London, S.W.1, 6 p.m. Paper "Visual Problems on Motorways" by J. M. Waldram.

Meeting of the Institution of Civil Engineers at Great George Street, London, S.W.1. "The Design, Construction and Operation of the Middle Lee Regional Drainage Scheme," by D. R. Balfour, H. D. Manning, T. Cripps and E. A. Drew.

Installation of H.R.H. the Duke of Edinburgh as president of the Institution of Highway Engineers, and annual luncheon at the Dorchester Hotel, London, W.1. President's reception, 12 noon.

### Jan. 10

Meeting of the Institution of Civil Engineers at Great George Street, London, S.W.1. Paper: "The Loading of Light Railway Tracks", by J. M. Kesson.

### Jan. 12

Meeting of the Institution of Civil Engineers, Great George Street, London, S.W.1. Informal discussion, "Achievement of Economy by Improved Design and Materials for Track and Railway Structures", introduced by F. J. J. Prior, A. C. Edrich and J. S. Campbell.

Meeting of the Institution of Structural Engineers at 11 Upper Belgrave Street, London, S.W.1, at 6 p.m. Paper: "The Structural Use of Aerated Concrete", by A. Short.

### Jan. 13

Meeting of the Birmingham branch of the Institution of Plant Engineers, Imperial Hotel, Birmingham. "Survey of Single Bucket Excavator Development" by Mr. T. Broughton of Ruston Bucyrus, Ltd.

### Jan. 17

Meeting at the Institution of Civil Engineers, Great George Street, London, S.W.1. Paper: "A Civil Engineer and Town Planning", by S. G. Wardley.

### Jan. 18

Meeting of the Reinforced Concrete Association at 11 Upper Belgrave Street, London, S.W.1, at 6 p.m. Paper: "Structural Analysis and Digital Computers", by J. Munro and A. Edwards.

### Jan. 23

Meeting of the County of London branch of the Faculty of Building, The Building Centre, London. 7. p.m. Practice Arbitration.

### Jan. 26

Meeting of the Institution of Structural Engineers at 11 Upper Belgrave Street, London, S.W.1, at 6 p.m. Paper: "The Design and Construction of Extension to British European Airways Engineering Base at London Airport", by P. B. Edwards.

### Jan. 28

Annual dinner and dance of the London branch of the Contractors' Mechanical Plant Engineers, Criterion Restaurant, Piccadilly.



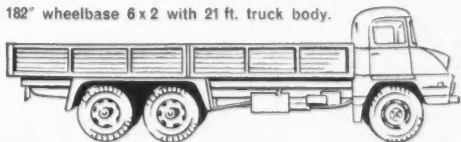
# PILE UP THE PROFITS WITH TRADER AND COUNTY

Tons-per-mile cost is what makes or mars your profit: with Trader and County, the tons-mile costs are down. Fully approved by Ford Motor Company Limited, the Trader County is available in a wide range of chassis lengths for both 6 x 2 and 6 x 4 ... has proved itself after 18 months' use on the road for quality and performance.

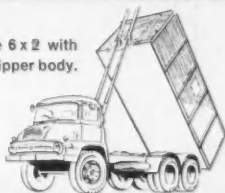
132" wheelbase 6 x 4 with 9 cu. yd. tipper body.



182" wheelbase 6 x 2 with 21 ft. truck body.



160" wheelbase 6 x 2 with 26 cu. yd. Bulk tipper body.

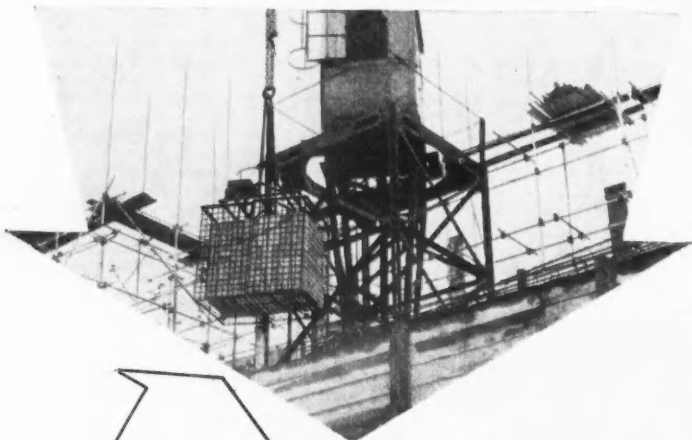


For further details of these and other similar vehicles of 15 tons G.V.W. contact your nearest **FORD MAIN DEALER** or—  
**COUNTY COMMERCIAL CARS (SALES) LIMITED, FLEET, HANTS**

Photo:  
Crown Copyright



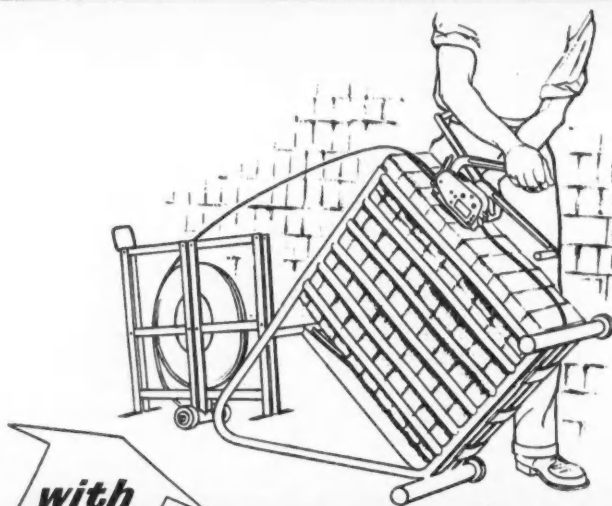
**UP** goes the  
brickwork . . .



**DOWN** come the  
handling costs

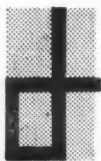
Ask any enterprising builder which *he* prefers to handle — bricks delivered loose in the old-fashioned way . . . or ready packed in 50's, with Seal-Less Strapping! Ask any brickmaker which *he* finds easier to sell — easier to count and easier to deliver! The answer in both cases will be **PACKED BRICKS**. Strapped by the Seal-Less System, for strength, security and economy. Write for details.

*Faster packing - Quicker handling - Fewer breakages!*



*with*

***Seal-less Strapping***



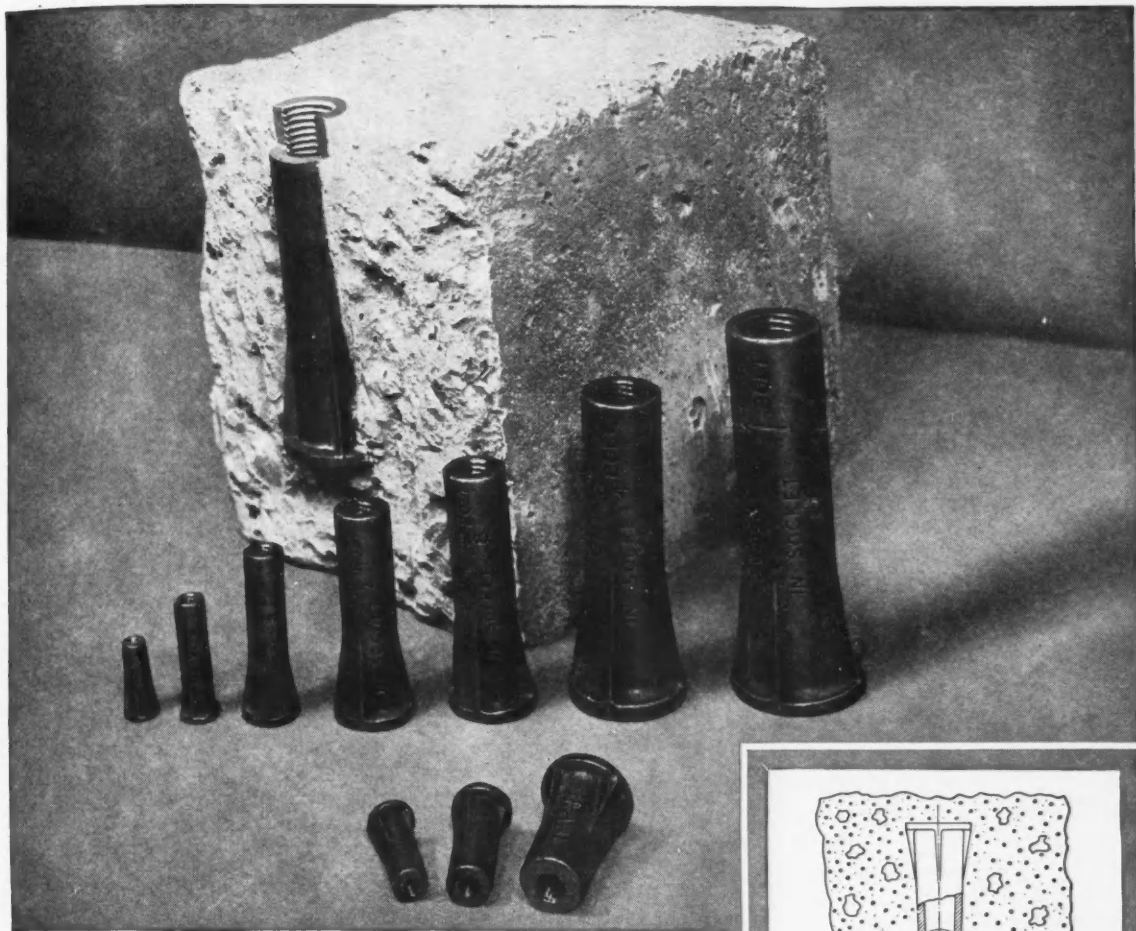
**SEAL-LESS STRAPPING LIMITED**

*A Member of the Gerrard Industries Group*

**GERRARD HOUSE, 96/104 BOROUGH HIGH STREET, LONDON, S.E.1**

Telephone: HOP 4400 (15 lines)

Telegrams: SUNNIEST, SEDIST



## BOLT-FIXINGS BEFORE YOU POUR—NO HOLES TO BORE!

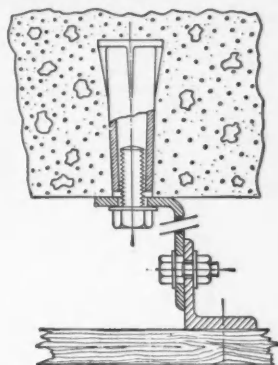
When bolt-fixings are required in concrete, and their location is known before the pour, Rawlplug Cement-in-Sockets will save you a great deal of time and trouble. The Cement-in-Sockets are attached to the inner face of the shuttering prior to pouring. When the concrete has hardened, the shuttering is struck leaving the Cement-in-Sockets in predetermined positions.

### KEYED FOR STRENGTH

Rawlplug Cement-in-Sockets are made

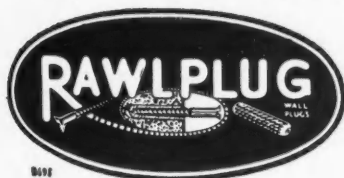
of malleable iron and shaped with four side fins and flanged base to ensure a strong permanent fixing. The key thus provided is so efficient that the strength of the fixing is determined by the strength of the concrete itself! Rawlplug Cement-in-Sockets are available for Whitworth bolts or set screws diameters from  $\frac{1}{4}$ " to 1".

Write now for full details of Rawlplug Cement-in-Sockets. Advice as to their application to your special needs gladly given without obligation on your part.



### SOME IMPORTANT USES FOR RAWLPLUG CEMENT-IN-SOCKETS

- when moulding post or pre-tensioned concrete members.
- when pouring floors to which false ceilings are to be fixed.
- for providing ready-made bolt-fixings for partitions, pipe runs, ventilating ducts, heating units, handrails, cable racks, etc., when constructing lift shafts, stairways, bridges, tunnels, sea walls, etc.



## CEMENT-IN-SOCKETS

one of the 23 different types of Rawlplug Fixing Devices for speed and strength

THE RAWLPLUG CO LTD • CROMWELL ROAD • LONDON SW7



# 960-RoadMac's LE

"WHELP"  
£325  
15 CWT.

## THE SKIP'S DESIGNED RIGHT

Skip is really designed—designed for strength and use. RoadMac improved dumpers give high weight capacities.

- 5 cwt. Whelp • 18 cu. ft. struck
- 10 cwt. Cub • 22 cu. ft. struck
- 10 cwt. Lioness • 28 cu. ft. struck

## THEY'RE EASY TO LOAD

Low loading height for ease of charging under mixer or by hand. There is no spillage loading the improved RoadMac dumpers.

- 15 cwt. Whelp 3' 1"
- 22½ cwt. Cub 3' 6"
- 30 cwt. Lioness 3' 6"

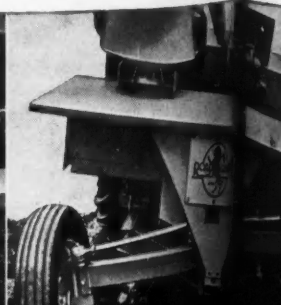
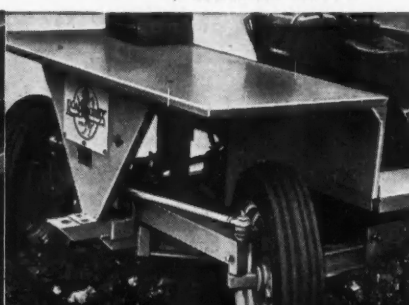
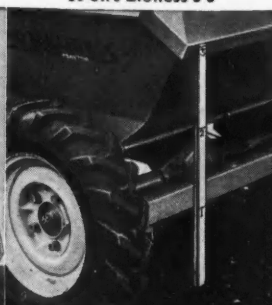
## THEY GET ABOUT

Save precious time charging, travelling, dumping on busy road and congested site. RoadMac improved dumpers are more manoeuvrable.

- Turning Radius: } 15 cwt. Whelp 7' 9"
- 22½ cwt. Cub 7' 9"
- 30 cwt. Lioness 10' 0"

## PROVED IN USE

The RoadMac improved range is the result of long experience in the design and manufacture of dumpers. They take the hardest punishment in their stride. Contractors throughout the world depend on RoadMac dumpers.



# LEAP year for dumpers

## RoadMac— BRITAIN'S DUMPER PIONEERS LEAP AHEAD WITH THIS TERRIFIC TRIO!



"Cub"  
**£425**  
22½ CWT.

"LIONESS"  
**£570**  
30 CWT.



### RUSH DETAILS

To  
Road Machines (Drayton) Ltd.  
West Drayton, Middlesex

\* Please rush full information on the 1. WHELP 2. CUB 3. LIONESS  
\* TICK OFF REQUIREMENTS

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

## RoadMac



**ROAD MACHINES**

(Drayton) Ltd.  
West Drayton, Middlesex  
Telephone: West Drayton

Ring MACaulay 2233 first for

# all Plant Hire

*Youngman*

CONTRACTORS' PLANT DIVISION

**W.C. Youngman Limited, Wandsworth Works,  
Wandsworth Road, London S.W.8.**



## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

(Continued from page 1276)

## FOR SALE.

1948 Jones Super 22 Mobile Diesel Fully Slewing CRANE, on pneumatics. Price £650.  
1958 Drott 1yd. Standard Bucket, good condition. Price £1,550.  
1954 Bedford Short-wheelbase Steel Body Diesel TIPPER. Price £150.  
2,000lb. capacity Coventry Climax Diesel FORKLIFT TRUCK, 12 months old, perfect order. Price £975.

## METAL SUPPLIES.

Broad Street Chambers, Sheffield, 2. Tel. 27710.

## AIR COMPRESSORS FOR SALE.

A Two Bellis and Morcom 2,450 c.f.m., 100 p.s.i., 550 h.p. motor, Broomwade 500 c.f.m., EH251; 400 c.f.m., EH245; 300 c.f.m., EH240; 150 c.f.m., D22A; 100 c.f.m., EP660; also numerous others of all makes; and AIR RECEIVERS from 1ft. to 9ft. dia., 100lb. to 1,000lb., w.p.

FRED WATKINS (ENGINEERING), LTD., Coleford, Glos. 'Phone: Coleford 2271/2.

FOR HIRE.—Available immediate, 1201 LIMA, fitted with genuine American 100ft. Crane boom, Back Haul Gear, Bridge, etc., and in first-class condition.—PLANT SALES, LTD., 25 Castlereagh St., London, W.1. Telephone: Paddington 2663/5.

MITCHELL'S PLANT SERVICES, LTD., can always offer an excellent range of used weatherill Hydraulic or Chasideside MECHANICAL SHOVELS. Price to suit all users.—Write or 'phone: Palmers Lane, Enfield, Middlesex. HOWARD 3493.

FOR SALE. Caterpillar SHOVEL, Model 977, 3,500 hours. Attractive price.—B.G. PLANT (SALES AGENCY), LTD., Watlington, Oxon. Watlington 44.

WANTED.—North West or P. and M. 3yd. EXCAVATOR. To have Forward Shovel and Dragline.—Write Box P.3163. "The Contract Journal."

## FOR SALE—SURPLUS TO OUR REQUIREMENTS.

One Drott BD6, fitted with Shovel and Bulldozer Equipment. Price £900.  
Two Sheepfoot ROLLERS, little used. Price £150 each.  
One Cummins "L" type ENGINE, works reconditioned at cost of over £2,000. Price £2,500.  
For further particulars, apply to:  
MARTIN COWLEY, LTD., Clay Cross, Derbyshire. Tel.: Clay Cross 2501/7.

DELMAG Diesel PILE HAMMERS for HIRE... Our fleet of these fine machines is the biggest in Britain. Models D5, D12 and D22 available with rope suspended leaders, and leg guides, suitable for driving any section of pile.

DUDLEY VALE, LTD., 3 Buckingham Place, London, S.W.1. Victoria 0252.

## FOR COMPRESSOR HIRE SERVICE.

From 1-tool to 12-tool (70 c.f.m. to 625 c.f.m. i.a.d.), Lorry-mounted and Portable. Full range of Pneumatic Tools.—HUBERT C. LEACH, LTD., High Street, Cheshunt, Herts. Tel.: Waltham Cross 25161 (5 lines).

BULLDOZERS, MECHANICAL LOADING SHOVELS and TRAXCAVATORS, etc., TIPPING LORRIES, 5/7-ton, for HIRE.—HENRY FROUD, LTD. Primrose Wharf, Tunnel Avenue, Greenwich, S.E.10 Telephone: GREENWICH 0072-3.

SMALL BRICK CRUSHER REQUIRED, portable engine-driven if possible. Write Box P.3147. "The Contract Journal."

FOR HIRE. Barber-Greene Junior, new 1957 and Barber-Greene Major, new 1959.—FRED WATKINS (ENGINEERING), LTD., Coleford, Glos.

REQUIRED, 5-ton TANDEM PATH ROLLER, Diesel. E.K. PLANT, LTD., Folkestone 51651.

## DIESEL TRACTOR TRENCHERS.

Dinkum Digger, on Fordson Major Petrol Tractor, Skyhi Front Shovel, cab, £450.  
J.C.B. Digger, on Major Diesel, cab, two Buckets, 1956, £650.  
Late 1957 Dinkum Digger, Mk. III, with cab, two Buckets. Bargain. £650.  
Dinkum Digger and Dozaloda Power Shovel, on Major Diesel, cab, two Buckets. £975.  
Dinkum Major, new 1958, with Power Shovel, cab, power steering, £1,750.  
WILLIAM R. SELWOOD, LTD., Chandler's Ford, Hants. 'Phone 2981.

## FOR SALE.

Chasideside SHOVEL, with Dozer Attachment, new 1953, since fitted with new Diesel Engine (electric start). Good machine, in clean condition. Two Benford 7/5 MIXERS, Diesel type Ray, fitted Hydraulic Loading Hopper, good condition. New 1957 and 1958.

PLANT AND BUILDING EQUIPMENT, LTD., Chatfield Rd., London, S.W.11. Tel.: BATTERSEA 9213.

ADVERTISER wishes to PURCHASE Modern 10RB, 19RB and 22RB Ruston-Bucyrus EXCAVATORS. Not less than 18000 Series, any equipment considered; condition immaterial.—Please write full details and price to Box QQ500. "The Contract Journal."

FOR SALE.—We have a few very good DRAGLINE BUCKETS for Lima or similar machines, 3'2yd., 2'2yd. and 2yd., complete with Dressings.

PLANT SALES, LTD., 25 Castlereagh Street, London, W.1. PAD. 2663/5.

THAMES VALLEY PNEUMATIC, Pneumatic Tool Specialists.—Complete RECONDITIONING SERVICE for all makes of tool.—South Lodge, Sunbury Park, Sunbury-on-Thames, Middx. Sunbury 3168.

## FOR HIRE

CHESHIRE HIGHWAY  
EARTH BORING MACHINE

Available with 9", 12", 14", and 24" augers ready to travel to all parts of the country at any time

ACWORTH (PLANT HIRE) LTD.

WALTHAM CROSS 28211/6

## LEACH GIVE

"OFF THE SHELF SERVICE"

for

ARMSTRONG-WHITWORTH  
PNEUMATIC TOOLS  
HOSES AND SPARES

Write for Details:

HUBERT C. LEACH LIMITED  
HIGH STREET CHESHUNT  
Telephone: WALTHAM CROSS 25161

**HIRE**

PLANT HIRE  
& SALE

Excavators  
Bulldozers  
Scrapers  
Mixers  
Pumps, etc

★  
Spares from  
stock.

**TAYLOR KENT**

WETDOWN ROAD,  
HASLEMERE, SURREY  
Telephone: HASLEMERE 2294/5

## SLOGGETTS PLANT HIRE

## ROLLERS OF ALL TYPES

2 Burtons Road, Hampton Hill, Middx.

Telephone: Teddington Lock 1138/9

## FOR LIMAS

## PLANT SALES LTD.,

25 CASTLEREAGH STREET, LONDON, W.1

Telephone: PADDINGTON 2663-4

## MARSH PLANT

MAIN  DISTRIBUTORS

HAMPSHIRE AND WEST SUSSEX

New J.C.B. 4 Hydraulic EXCAVATOR, £2,525  
New BROOMWADE WR120 2-tool COMPRESSOR £1,050  
J.C.B. HYDRA-DIGGA, Counterweight, 1957 machine. Painted; ready for work. 10012 £975  
J.C.B. HYDRA-DIGGA, Counterweight, 1959 machine. Ready for work. 10023 £1,600  
Ruston 10RB 15000 Series. Fitted Skimmer/Backacter. PH160 £1,500  
CHASIDESIDE 3yd. DUMPER, Fordson Diesel, Cab. Good condition. PH157 £500  
RECORD TOWER CRANE. 1959 machine. 40ft. high. 4cwt. at 34ft. radius. Pettet Diesel. Hardly used. 10013 £950  
BROOMWADE 5VD2 3-Tool COMPRESSOR. Lister Diesel, 1947 machine £250  
C.P.T. 2-Tool Lorry-mounted COMPRESSOR, mounted on Karrier Bantam chassis £500  
WINGET and MILLARS 14/10, 10/7, 7/5 MIXERS. Choice at £200 each  
WINGET and BENFORD 5/3, MIXERS. Choice from £40 upwards  
ALLIS-CHALMERS HD7, G.M.C. 2-stroke Diesel Engine, Gar Wood Hydraulic Bull/Angle Dozer, P.C.U. Ready for work £525

For HIRE — SALES — SERVICE  
'Phone: EMSWORTH 2032-2634.

## MARSH PLANT

& MACHINERY CO., LTD.

SOUTH STREET, EMSWORTH, HAMPSHIRE.

## Available Now

New TUNNY 2 ton  
ALL-HYDRAULIC CRANES

for IMMEDIATE DELIVERY

Mounted on a choice of  
THAMES OR COMMER  
CHASSIS

★ ★ ★ ★ ★

Details from:

## CRIPPS

NOTTINGHAM

Telephone 71161 (10 lines)

MANCHESTER

Telephone Trafford Park 1658

PUMPING MUD?  
you need a

## MUD MARVEL

BUY  
or  
HIRE  
from the  
sole makers  
W.G.

SEARCH LTD. WHITEHALL RD. LEEDS. 12.

## CAMBRIDGE

HIRE—SALES—SERVICE

**MOSS**  
CAMBRIDGE LTD.

Modern Diesel

## COMPRESSORS

EXCAVATORS  
TRENCHERS  
BULLDOZERS

146 HILLS ROAD, CAMBRIDGE. Phone: 87519

Modern Diesel

## ROLLERS

DUMPERS  
MIXERS  
PUMPS, ETC.

## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

**PETERBOROUGH MOTORS, LIMITED.**

The Ford People.  
Ruston 10RB EXCAVATOR, 9000 Series, rigged as 7/8 cu. yd. Backacter, complete with Dragline Equipment, two Buckets and Skimmer Attachment. Very clean machine; ready for work. £850 or near offer.

1956 Skihl Ardua LOADER, on oversize tyres, re-conditioned engine and clutch, 1 1/2 cu. yd. full-width Bucket. Ready for work. £625 or near offer.

Lister 4-cyl. 20-kVA GENERATING PLANT, in good working order. May be seen working. £200 or near offer.

New J.C.B. 4 EXCAVATOR, complete with 7/8 cu. yd. full-width Bucket, 3-in-1 Excavator Bucket, oversize tyres. Immediate delivery.

Main Fordson, J.C.B., County and Holman Tractor Distributors.

Tractor and Industrial Division,  
Oxney Road, Peterborough. Tel. 4228/67007/5271-5.

**FOR HIRE AND SALE: ARMSTRONG-WHITWORTH PNEUMATIC POKER-TYPE CONCRETE VIBRATORS.**

We are distributors for all types of Armstrong-Whitworth Pneumatic CONCRETE TOOLS, including Concrete Breakers, Light Picks, Clay Diggers, Rock Drills, Pumps, Backfill Rammers and Tampers, Hoses and Accessories. We hold a large stock of Spares and can give a 48-hour repair service. New and Second-hand Air Pumps COMPRESSORS for SALE. Send for list.

HUBERT C. LEACH, LTD., 131 High Street, Cheshunt, Herts. Tel.: Waltham Cross 25161 (5 lines).

**WANTED TO PURCHASE.**

Two DRAGLINE BUCKETS for 22RB Excavators. Two BACKACTER BUCKETS only for 22RB Excavators. One 19/15 or 21/17 cu. ft. Heavy Duty Double Rope DIGGING GRAB.

Offers, stating condition, to:  
METAL UNION (PLANT), LTD.,  
75 Victoria Street, London, S.W.1.

**FOR HIRE.**

New Parker Rockranger CRUSHER, 30in. x 18in. jaws.

New Caterpillar 977 Series "H" TRACTOR SHOVEL.

New Greens 6/8-ton Diesel ROLLER.

JACK BRANCH,  
Waterbeach, Cambridge. Tel.: Waterbeach 571.

**FOR SALE.** 2-ton Taylor MOBILE HYDRACRANE, purchased from manufacturers in March, 1960, excellent condition, surplus to requirements, £750. Can be viewed by appointment.—COHEN BROS. (ELECTRICAL), LTD., 11 King Edward Buildings, Bury Old Road, Manchester, 8.

**FOR SALE.** One Fowler Challenger Mark III, Serial No. 4480378, fitted with Winch and Ruston Bulldozer Equipment. Price £1,250 where lying. May be inspected by arrangement in Middlesex. Write Box P.3200, "The Contract Journal."

**AVAILABLE FOR HIRE AND CONTRACT: D9 and D8 TRACTORS, with Blade or Scraper.**—ELLIOTT, Wetherby Road, York. Telephone: 78220 and 78501.

**SLOGGETTS PLANT HIRE.**—For DINKUM DIGGERS, modern machines.—2 Burtons Road, Hampton Hill, Middx. Tel.: Teddington Lock 1138/9.

**CONTRACTORS' PLANT FOR HIRE.**

New Motorised PAYSCRAPERS for immediate HIRE (22 cu. yd.).  
TD14 and TD18 TRACTORS, fitted with Drott Skid Shoels.  
STD6, STD20, TD9, TD14, TD18 and TD24 TRACTORS, with Bulldozers and/or Scrapers.  
TD18 TRACTORS with Pipe-laying Equipment.  
10RB, 19RB and 22RB EXCAVATORS, with all Equipments.

First-class machines and operators, backed by finest field service in Great Britain.

Generous transport terms to all parts of England.

LUMLEY (PLANT), LTD.,  
Stratford-on-Avon 4242, Ashford (Middx.) 4191, Cardiff 33572.

**FOR SALE.**

25-ton L/M CRANE, one Link-belt Speeder/Mack, American manufactured, trolley-mounted,

25-ton Crane, unused, 6 x 6, Asking price £8,500.

One 5-ton Diesel FORKLIFT TRUCK, by Cranemobile, on pneumatics, price £1,500.

Photographs and Specifications from:  
BOWMANS, Ballards Wharf, Poole 334.

**FOR SALE.—J.C.B. HYDRA-DIGGA BUCKETS.**

Second-hand but only used for about 100 hours.

8ft. Ditching Bucket, £40.

12/4in. Ditching Bucket, £45.

48in. Backacter Bucket, £50.

GILBERT HOWELL, West Street, Earl Shilton, Leicester. Earl Shilton 2210.

**WANTED.**

CRAWLER TRACTORS and Bulldozers, any condition; also Parcels of Spares for same. Prompt cash and collect.

SPARE PARTS available for TD6, 9, 14, 18, Caterpillar D2, D4, Fowler VF, FD3, Allis M and County.

ROBIN BOSWORTH,  
Tel.: Stoke Saint Milbros 237. Nr. Ludlow, Shropshire.

**WANTED. FORK LIFT TRUCKS.**

1-ton to 6-ton capacity. Petrol or Diesel, any condition. Cash on inspection. We offer reconditioned machines in

PART EXCHANGE and HIRE FORK LIFTS for all purposes.—FRED WATKINS (ENGINEERING), LTD., Coleford, Glos. Telephone: Coleford 2271/5.

**FOR SALE OR HIRE.**

14/10 Rex Cleanline CONCRETE MIXER, recently overhauled and in excellent

order. Petter Diesel Engine. Normal or high discharge. Weigher and Dragline if required.—W. V. DAVIES, Concrete Mixer Service, Shipston-on-Stour. Phone 125.

**PLANT HIRE.**

Earthmoving, Site Clearance, Excavations for Roads, etc.

DOUGLAS HAMILTON, LTD.,  
Tunbridge Wells. Telephone: Southborough 1538.

**WANTED.**

Lorain EXCAVATORS, 1 1/2 to 2 cu. yd. machines, fitted Shovel, Dragline or Crane also considered.

Write Box P.3164, "The Contract Journal."

**WANTED.**

Caterpillar D8 2U; Caterpillar D7 3T, in good order. Serial number above 15000.

SOCIETE ECOMM, 18 rue de Berri, Paris. ELYsées 19-66.

**FOR SALE.**

Caterpillar 955 TRAXCAVATOR, new 1956, 12A Series, Forward Tip, 1 1/2 yd. Bucket, Cab. Checked over and repainted, very good. Lying Windsor, £3,750.

D4 2T and 71 TRACTORS, fitted Dozers and Winches. Checked over and repainted, very good. Lying Windsor, £675 each.

D7 7M TRACTORS, fitted Dozers and Winches, very good. Working London area, £1,750 each.

D8 8R TRACTORS, fitted Dozers and Winches, cleaned, overhauled and repainted. Lying Mid-lands, £2,750 each.

Ring Windsor 60668.

AXWORTHY AND COMPANY, LTD.,  
(Drots for Hire),  
Old Windsor, Berks.

**CONCRETE MIXERS FOR SALE OR HIRE.**

Little Benford Model J. J. Millars, Stothert and

5/31 Benford, Parker, Liner, Millars, Stothert and Pitt, and Goodwin. Petrol, Diesel and Electric driven. 50 available.

10/7, 4/10, 18/12, 21/14. Various makes. Petrol, Diesel or Electric driven. 30 available.

Some with Weighers and Dragline Loaders.

New 4/3 and 5/3 1/2 Barford. Petrol and Diesel driven. From stock.

Old machines taken in part-exchange.

W. V. DAVIES, Concrete Mixer Service, Shipston-on-Stour. Phone 125.

**SALE OF BUILDERS' HOISTS:**

Ace Midget Scaffold CRANES, complete. Four at £85 each.

Saga Junior Scaffold CRANE. One at £82 10s.

Ace Mastermobile 10cwt. Diesel Mobile Platform HOIST, £175.

All load-tested and certified. Hire Purchase available. Full range of new Builders' Hoists in stock.

WILLIAM R. SELWOOD, LTD.,  
Chandler's Ford, Hants. Phone 2981.

**FOR SALE.**

Broomwade SV199 COMPRESSOR. Recently overhauled.

Smith No. 7 EXCAVATOR, good condition, with Face Shovel, Skimmer, Trencher, Dragline Attachments, two Dragline Buckets, 1/2 cu. yd.

Both machines can be seen working.

Write Box P.3198, "The Contract Journal."

**ALLIS-CHALMERS HDGG.**

12 months old, in first-class order, complete with scarifier.—To be seen at ALLPLANT, LTD., Green Lane, Blackheath, Birmingham. Tel.: Birmingham Blackheath 2331 or Hertford 2356.

**PLANT SALES, LTD.**

REQUIRE Two really good 1201 Lima DRAGLINE EXCAVATORS. If you have one, please offer it as quickly as possible.

Please reply to 25 Castlebragh Street, London, W.1. Telephone: PADDINGTON 2663/5.

**OBILE CRANES FOR SALE, HIRE AND SPARES.**

Coles, Ransomes, Morris, etc.—ROBERT DIXON LTD., Authorised Coles Repairers, Hunston, Herts. Tel.: Stantstead Abbotts 301/3.

**FOR HIRE.**

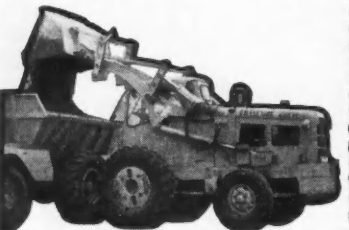
2-Ton COMPRESSOR, 750ft. of Hose, with Heavy Breakers and Rock Drills.

Boxmoor 5384 or Garston 3518.

**USED CHASESIDE LOADMASTERS****BEFORE PURCHASING a loading shovel IT WILL PAY YOU**

to inspect our collection of reliable used LOADMASTERS which have passed through our own workshops, have been brought up to warranty standards and are offered at keen prices.

In addition to Loadmasters we have all makes of Loading Shovels at prices to suit all requirements.



Please write, phone or better still call and inspect our comprehensive stock.

**CHASESIDE ENGINEERING CO LTD**  
USED EQUIPMENT DIVISION,  
STATION WORKS, HERTFORD, HERTS.  
Tel: Hertford 3113

(and at Blackburn)

**SLOGGETTS PLANT HIRE**  
COMPRESSORS OF ALL TYPES

2 Burtons Road, Hampton Hill, Middx.

Telephone: Teddington Lock 1138/9

**ROAD ROLLERS**

FOR HIRE OR SALE

10 CWTs. to 10 TONS

with or without drivers

**HALTRAC LIMITED**

Bourne Works, Weimar Street, S.W.15

PUTney 4185

**WILLIAM JONES LTD.**

WESTMOOR STREET, CHARLTON,  
LONDON, S.E.7.

Telephone: GREenwich 3821/5

**FOR HIRE**

Excavators, 3/4 to 3 cu. yd., and equipments.

40-h.p. to 104-h.p. Diesel Crawler Tractors, with Hydraulic Angledozer equipment.

3 cu. yd. M.R. Diesel Dumpers, front control.

1 yd. Diesel Dumpers.

Weatherill Loading Shovels.

**FOR SALE**

Fowler VF Diesel Crawler Tractor, with or without Hydraulic Angledozer equipment.

Excavator Equipments; Priestman-Panther Skimmer and Backacter Equipments.

Specialists in Priestman Universal Excavator and all equipments. Hire, Hire with Option to Purchase, Sale, Part exchange and Overhauls.

**LEVERTON**  
YOUR CATERPILLAR DEALER**offer outstanding used Tractors and Equipment**

2 CATERPILLAR D8, 14A Series, Hydraulic Dozer and Caterpillar C.C.U. in good condition, from £5,500 each.

3 CATERPILLAR D7, 3T Series, Hydraulic Dozer and Caterpillar C.C.U. in good condition, from £2,700 each.

6 CATERPILLAR DW21s, 69C Series. In good condition, from £6,000 each.

3 CATERPILLAR 977s E Series Traxcavators. In good condition, from £5,300 each.

1 CATERPILLAR No. 6 Shovel, in good condition. Recommended, £3,000.

3 CATERPILLAR 955C Traxcavators, choice reconditioned and low hour meter machines. Recommended, from £3,900 each.

1 CATERPILLAR 933 Traxcavator, now in our workshops. Available in 14 days. Price on application.

1 INTERNATIONAL BTD6 Drott Shovel. As from site, £1,000.

1 INTERNATIONAL BTD6 Drott Shovel. Reconditioned tracks and rollers, £1,850.

3 JOHN DEERE 1yd. Crawler Loaders, only six months old. All in very good condition, from £2,100 each.

2 COUNTY Crawlers, with Hydraulic Doers, from £675 each.

1 CATERPILLAR D6, 8U Series, Hydraulic Dozer. Now in our workshops. Price on application.

Caterpillar, Cat and Traxcavator are Registered Trademarks of Caterpillar Tractor Co.

**LEVERTON**

LEEDS Gildersome, Leeds. Tel: Morley 4221

SPALDING Spalding, Lincs. Tel: Spalding 3221

WIGAN Wigan Rd., Bryn, Ashton-in-Makerfield

Tel: Ashton-in-Makerfield 7675

NEWCASTLE Team Valley Trading Estate,

Gateshead. Tel: Low Foll 76511 (4 lines)

ROTHERHAM Meadow Bank Rd., Rotherham.

Tel: Rotherham 78259

**IMMEDIATE DELIVERY**

All prices shown subject to negotiation. These machines and equipments offered subject to remaining unsold.

## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

**LIGHT RAILWAY MATERIAL FOR SALE**  
3,000yd. 25lb. S.S. TRACK, 24in. gauge.  
500yd. of new 30lb. S.S. TRACK.  
1,000yd. of 20lb. S.S. TRACK.  
Four Diesel LOCOMOTIVES, from £455.  
Four Dorman Engines, 3½ tons, 24in. gauge.  
Two Montana Diesel LOCOMOTIVES, 2½ tons, 24in. gauge.  
One Simplex Diesel LOCOMOTIVE, with National Engine.  
2½ tons, 24in. gauge. Completely overhauled.  
One 1½-ton Lister Petrol LOCOMOTIVE, J.A.P. Engine, completely overhauled, 24in. gauge.  
Three U-shaped TIPPING WAGONS, 24in. gauge, 16 cu. ft. capacity.  
40 1yd. TIPPING WAGONS.  
Four 2 cu. yd. 24in. gauge Rugga TIPPING WAGONS.  
Macos Pressed Steel Lay-on SWITCHES.  
Macos Pressed Steel Lay-on TURNABLES.  
POINTS and CROSSINGS and TURNABLES.  
WHEELS and AXLES, all gauges.  
Macos AXLEBOXES.  
PLATELAYERS' BOGIES, 4ft. 8½in. gauge.

M. E. ENGINEERING, LTD.,  
457 Finchley Road, London, N.W.3. Telegrams  
MENGILL, London. Phone: HAMstead 7481-2-3.

## MACHINES FOR SALE OR HIRE.

Allan VIBRATING POKER.  
Benford, Barford, Limer, G.F. and Thwaites 15cwt.,  
1-ton and 1½-yd. DUMPERS.  
3rd Motor Rail DUMPER.  
Ferguson Diesel TRACTORS.  
Sykes LIFT and FORCE and CENTRIFUGAL PUMPS.  
Stothert and Pitt 28in. VIBRATING ROLLER.  
MIDLANDS ENGINEERS (W.V. Davies),  
SOUTH  
Shipston-on-Stour. Telephone 125.

**TOKEN FOR PLANT.**  
HIRE YOUR EXCAVATORS, DOZERS and  
SCRAPERS, DINKUM MAJOR DIGGERS and Drott  
SHOVELS, TRENCHERS, DUMPERS, ROLLERS,  
CONCRETE MIXERS, PUMPS, COMPRESSORS,  
RAMMERS, TRENCHERS, HOISTS, GENERATORS,  
etc., from TOKEN CONSTRUCTION CO., LTD.  
Plant Depots:  
Station Rd., Thatcham, Berks. Tel.: THA. 3243-3370.  
Valmar Rd., Camberwell, S.E.5. Tel. BRIXton 5103.

**FOR SALE.**  
One Blaw Knox 6yd. SCRAPER, completely re-  
conditioned.  
One Ruston-Bucyrus C.C.U. for TD9.

**PLANT REPAIRS (BRISTOL).**  
Fox Road, Bristol, 2.

**FOR SALE.** Two 4in. bore CARVER CENTRIFUGAL  
PUMPS, delivery 500 gallons per minute, com-  
plete with 4-cyl. engines. These machines are unused  
and in perfect condition. £150 each.—THORNTON  
AND GARNETT, Rathmell Garage, Rathmell, Settle,  
Yorks. Tel.: Long Preston 278.

**FOR SALE.** 22RB, with Forward Shovel Equipment.  
Choice of two, Serial Nos. 21273 and 23592.  
Both these machines are in first-class condition and  
can be seen working.—FRANK LANGFIELD, LTD.,  
The Baulk, Staincross, near Barnsley. Tel.: Darton 385.

**Muir-Hill 3 cu. yd. DUMPERS**, in good running  
order, £250 each o.n.o.—ALLPLANT, LTD.,  
Green Lane, Blackheath, Birmingham. Tel.: Birming-  
ham Blackheath 2231 or Hertford 2536.

**FOR SALE.** Rapier 410 (¾ cu. yd.) EXCAVATOR,  
with Forward Shovel, Skimmer and Backsifter.  
Well maintained.—WILLIAM G. SEARCH, LTD.,  
Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

**WANTED.** Conveyancer, or similar, 3,600lb. at  
20in. FORKLIFT TRUCK, 9ft. minimum lift.  
Preferably battery operated. Solid tyres.—MADOC  
JONES MACHINERY, Denbigh. Tel. 201.

**URGENTLY REQUIRED.** 10 22RB and 19RB post-  
17000 Series EXCAVATORS, with either Dragline,  
Crane or Shovel Equipment.—Write Box P.3208,  
"The Contract Journal".

## J. J. JOHNSTON AND COMPANY, LTD.

OFFER FOR SALE.  
Rapier ¾ cu. yd. EXCAVATORS, new 1953, Four-  
purpose Equipment, very good condition. From  
£750.

Two J.C.B. Hydra-Digga/Loadall EXCAVATORS,  
1957/58. Price on application.

Weatherill 1957 LOADING SHOVEL, Type 2HCRA,  
with ¾ yd. Scoop, Ford 4D Engine, in good  
condition, £950.

Allen-Parsons 16/60 TRENCHER, new 1954, Gardner  
SLW Diesel Engine, 30in. Bucket Chain, unused  
since overhaul, in very good order, £1,375.

Drott SKID-SHOVEL, BTDS, with 4-in-1 equipment,  
new 1958, £2,400.

Drott SKID-SHOVEL, BTDS, September, 1957, Cab,  
new type tracks, £1,700.

Drott SKID-SHOVEL, BTDS, March, 1958, Cab, good  
condition, £1,900.

Caterpillar D4 2T ANGLEDZOER, tracks recently  
reconditioned by Myers, £750.

Blaw Knox 4 cu. yd. SCRAPER, cable-operated, good  
order, £100.

Holman Type T13D 2-tool COMPRESSOR, 1955,  
Dorman Engine, two pneumatic wheels with  
brakes, £525.

Holman Type TAI3D 2-tool COMPRESSOR, 1959,  
Fordson Engine (electric starting), two pneumatic  
wheels, £590.

Neals Model G15cwt. Petrol CRANE, 20ft. Lattice  
Jib, reconditioned, £175.

Blaw Knox 2½ yd. TRUCK MIXER on Bedford 7-ton  
chassis, new 1957, £1,100 or near offer.

Eonit 60-ton BULK CEMENT PLANT, with 8-ton  
Receiving Hopper, Elevators, Electric Blowers,  
etc., £850.

Road Machines 27 cu. yd. Batchmatic BATCHING  
PLANTS, new 1958 and 1959, in very good  
condition, From £1,550.

Blaw Knox Mobile Junior WEIGHBATCHERS, 13  
cu. yd. capacity, with Weighgear, mounted on  
pneumatic-tyred wheels, new 1951. From £175.

Road Machines 14 cu. ft. Twin Bucket SWING  
WEIGHBATCHER, £60.

Liner 15cwt. Diesel DUMPERS, new December, 1958,  
very good condition, £230.

Benford 22½cwt. Mk. 7 DUMPERS, new October,  
1958, very good condition, £270.

Muir-Hill 10B DUMPERS, Ford 4D Diesel Engines,  
new August, 1957, reversible seats, canopies,  
excellent condition, hardly used, £625 each.

Benford 10/7 Reversing Drum CONCRETE MIXER,  
new 1960, Diesel Engine, Weighgear and Drag  
Shovel, excellent condition, £800.

Winget THR. 10/7 Tipping Drum CONCRETE MIXER,  
Dorset 1958, £620.

Several Winget 7/5 CONCRETE MIXERS, with Diesel  
Engines, good condition, £100 each.

Acrow 25-ton CEMENT SILO, new 1959, clean and in  
good order, £40.

Further details:  
271 Uxbridge Road, London, W.12.  
Tel.: Shepherds Bush 6941.

**DROTT 86K3 1½ yd. SHOVEL**, 1958, £1,600.

J.C.B. HYDRA-DIGGA on Fordson Major, with  
Major Loader Front Shovel, 1957, £725.

10RB EXCAVATOR, with Skimmer and Backsifter,  
10000 Series, £650.

Leyland Comet 75 LOW-LOADER, knock-out axle,  
engine reconditioned, 1956, £950.

FIELDS, Forest Edge, Ringwood Road, Ferndown,  
Dorset. Telephone: Ferndown 837.

**WORKING** in the Lancs. and Cheshire areas?  
Woolfenden's are your MOBILE CRANE people.

Light or heavy Lorain, Michigan, Quick-Way, Neals  
Lifts up to 30 tons. Boom lengths to 150ft.

Anfield, Liverpool 4. Tel.: Stoneycroft 3755/9087.

**MAIDEN PIPE SCREWING MACHINE**, motorized  
400-V 3-phase 50-cycles, up to 6in. pipes,  
1½in. Whitworth bolts, cutting-off attachment, Sud  
Pump. This machine is as new, £265.—NORMAN  
WALKER (MACHINERY), LTD., Anlaby, Hull.

## ROADS AND RUNWAYS OFFER FOR SALE:

COMPRESSORS:  
315 c.f.m. C.P.T., powered by Ruston 4VRH Diesel,  
Berger starter, mounted on four pneumatics.

Two, £800 each.  
520 c.f.m. Air Pumps, powered by Dorman 6K Diesel,  
mounted on four pneumatics, £1,100.

110 c.f.m. Broomwade SV128 Portable, £250.  
105 c.f.m. Pescara Munz, £425.

PORTASILOS:  
Two 20-ton Model 201, with Pullway and 250lb.  
Weigh Hopper, £285 each.

One 20-ton Model 201, with Pullway and 250lb.  
Weigh Hopper, £360.

One 11-ton, with 140lb. Dispenser but no Pullway,  
£200.

HOPPERS:  
Two ½ yd., Side and Bottom Discharge.  
Two ¾ yd., Side and Bottom Discharge.

Two 1 yd., Side and Bottom Discharge.  
WEIGHBATCHERS:  
Blaw Knox 21 cu. yd. (3-compartment), £325.

Road Machines 14 cu. ft. Double Swing Weigh-  
batches, £130 each.

MONORAIL POWER WAGONS:  
Four 10 cu. ft., Petrol Engine-powered, £200/£275.

HOISTS:  
Four 20/30cwt. A.C.E. Platform Hoists, £400 each.

ELECTRIC HAMMER DRILLS:  
24 Victor Style 91V1B, £5 each.

ROAD FORMS:  
350 8in. x 10in. Long Heavy-Duty, 52s. 6d. each.

ROADS AND RUNWAYS,  
26 Victoria Street, London, S.W.1. Tel.: Abbey 4905.

**FOR IMMEDIATE HIRE.**  
Deilmag Diesel PILE HAMMERS, DS, D12 and D22.

G17T Deilmag PILE FRAME, with Turntable.

KL44 MOBILE CRANES, jibs up to 50ft., pneumatics  
or tracks.

Neal NM 2-ton MOBILE CRANE, 30ft. jib.

Johnson 1 cu. yd. and 1½ cu. yd. Diesel DUMPERS.

Zenith PILE EXTRACTORS, Nos. 20 and 80.

20-ton PORTASILOS.

McKierman-Terry PILING HAMMERS, 5, 6, 7 and 983.

Ruston Diesel LOCOMOTIVES, 2ft. gauge, 25/30-h.p.

10/7 Winget CONCRETE MIXERS, Diesel.

2in. and 4in. CENTRIFUGAL PUMPS.

TRENCH SHEETS, 10ft. and 12ft.

STEEL SHEET PILES, Sections 1B, No. 2 and No. 3.

various lengths.

Spencer-Hopwood BOILERS, all sizes.

22RB, with Dragline and 70ft. Crane Equipment.

DUDLEY VALE, LTD.,  
3 Buckingham Place, London, S.W.1. VIctoria 0252.

**D9, D8, TD18 and TD14 BULLDOZERS** and  
Scrapers, Motor Graders, Excavators and new  
Tippers for HIRE or SUB-CONTRACT WORK.

Particular attention given to finish and compaction.  
New and modern machines in first-class condition.  
Good operators. Technical staff available to analyse,  
programme and price complex projects.

**DICK HAMPTON,**  
Broadview Farm, Blacknest, Alton, Hants.  
Telephone: Bantley 2241.

**NARROW TRENCH BUCKETS** to fit all  
machines. SALE or HIRE. The Norton Backsifter  
Bucket designed by user digges harder material and  
empties more efficiently. Sizes 1ft. 6in./2ft. 4in.

**IMMEDIATE DELIVERY.** Other sizes within 10 days.  
Contact NORTON PLANT HIRE, LTD., Ramsden,  
Billericay, Essex. Tel.: Ramsden Heath 365/6.

**FOR SALE.** A good modern Lima 2400,  
with both equipments, and in very good order.

PLANT SALES, LTD., 28 Castleburgh Street, London  
W.1. Telephone: Paddington 2663/5.

**FOR SALE.** DINKUM DIGGERS, in good working  
order, from £550.—Further details from  
GROCOCK AND DAY (PLANT HIRE), LTD., Rowsley  
Street, Leicester. Tel.: Leicester 36566 (three lines).

**FOR SALE.** International Drott TRACTOR SHOVEL,  
late 1957.—B.G. PLANT (SALES AGENCY),  
LTD., Watlington, Oxon. Watlington 44.

## DRAGON PLANT HIRE LTD.

Excavators, Bulldozers, Overloaders,  
Crawler-Cranes, Trenchers, Dumpers,  
Mixers, Pumps, Drott Shovels, Road  
Rollers, Scrapers, 10-ton Articulated  
Loader, etc.

FOR HIRE EVERYWHERE  
RING GUILDFORD 67277

## FLYGT PUMPS FOR HIRE

All sizes of Flygt Electric Pumps  
available for hire (ex-stock)

Range includes 1½in., 3in., 6in., and  
8in. deliveries

## INDUSTRIAL PUMPS LTD.

20 BENTINCK ROAD, HYSOON GREEN  
NOTTINGHAM Telephone 75182/3



10RB, 16000 Series, SK/BA Equipment.  
SMITH Super 10, 1956 make, SK/BA Equipment.  
D4, R Series, Angledozer and Winch.  
TRACK-MARSHALL TRACTOR, Hyd. Angledozer.  
WINGET 77HH Diesel CONCRETE MIXER,  
with Hydraulic Batch Weigher and Drag Feeder.

**THOS. W. WARD LTD.,**  
BAYTON ROAD, EXHALL, COVENTRY  
Tel.: Bedworth 2441 (4 lines).

Hire them from

**JOSEPH PUGSLEY AND SONS LTD** Lawrence Hill BRISTOL, 5

TELEPHONE 56037 (4 Lines) • GRAMS, 'PISTON', BRISTOL.



## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

**VALES PLANT REGISTER, LTD.**  
OFFER FOR IMMEDIATE SALE:

**CRANES**  
NEALS NM 2-ton MOBILE, 35ft. Jib, Ruston Engine, 1951, pneumatics, £1,000.  
JONES KL22 2-ton MOBILE, 16ft. Jib, on pneumatics, 1954, £1,050.  
JONES 3-ton MOBILE, 24ft. Jib, on pneumatics, 1948, £1,100.  
JONES KL44 MOBILE, 1950/51, pneumatics, good order, £1,650.  
JONES KL44 CRAWLER, 1953, 50ft. Jib, vety good condition, £1,600.  
NEALS QM 4 6-ton MOBILE, 45ft. Jib, Ruston Engine, pneumatics, very good condition, £2,950.  
MORGAN 5-ton 2-motor Electric DERRICK, 80/100ft. Jib, good condition, £1,250.  
ALLEN T6K 5-ton LORRY-MOUNTED, 25/40ft. Jibs, petrol and Diesel. From £1,950 each.  
5-ton Electric SCOTCH DERRICK, 120ft. Jib, very good condition, £2,250.  
COLES A.E.C. 6-ton LORRY-MOUNTED, 1958, Ford Diesel, 40ft. Jib, very good condition, £5,750.  
JONES 6-ton KL66 Diesel MOBILE, Cantilever Jib, pneumatics, 1958, good order, £4,150.  
BUTTERS 7-ton 2-motor Electric DERRICKS, 120ft. Jibs, £3,150 each.  
RUSHWORTH 7-ton Hand DERRICK, 30ft. Jib, unused, £450.  
COLES 10-ton L1210 LORRY-MOUNTED, 40ft. Jib, P4 Perkins, pneumatics, overhauled recently, £6,500.  
BUTTERS 10-ton Electric DERRICKS, 120ft. Jibs, Self-propelled Bogies, overhauled, £3,750.  
COLES 12 1/2-ton MOBILE, 60ft. Jib, on pneumatics, November, 1958. Price on application.  
HENDERSON 15-ton Electric DERRICK, 110ft. Jib, 1951, very good condition, £6,000.  
MORGAN 15-ton Steam DERRICK, 120ft. Jib, new 1958, on bogies, £8,750.  
COLES 20-ton FULLY MOBILE, 40ft. Jib, new 1956, on pneumatics, very good order, £10,000.  
COLES 40-ton LORRY-MOUNTED, new 1954, in very good condition. Price on application.  
Further details: 14 Lower Grosvenor Place, London, S.W.1. Victoria 7531, 3501, 8080, 9886 (15 lines).

**FOR SALE**—Jubilee TRACK, Side/end-tipping WAGONS, FLAT BOGIES, JIMCROWS, CROWBARS, ROADFORMS, 3/4in. M.S. BARS, Octagonal JUMPER DRILLS 4ft. 6in. x 1 1/2in. A/F, Cruciform SOLID STONE DRILLS 5ft., 5-ton JACKS, TUBE/BAR BENDERS, CHAIN BLOCKS, SHOT-FIRING MACHINES, Scissor-type LIFTING GRIPS, STEEL SHAFTS 7 1/2ft. x 1 1/2in., Galvanised JOINTING PLATES grooved three oval holes, with bolts, 2,000 H.S.S. Flat RAIL DRILLING BITS, 200 CATERPILLAR ADJUST. JACKS, 40 pairs STEEL WHEELS/AXLES 36in. gauge.—JAMES H. WILLIAMS, 4 Dock Chambers, Cardiff. Phone 31752.

**FOR SALE or HIRE**: JUBILEE TRACK; TIPPING WAGONS; BOGIES, etc.; B.M. and P.B. RAILS for relaying or shoring; Pierced Steel LANKING and SHUTTERING PANELS; HAND WINCHES; SHEAR LEGS and CHAIN BLOCKS; HAND BUCKETS; LIFTING JACKS; STORAGE TANKS; GIRDERS; ANGLES; CHANNELS and ROOF TRUSSES; Steel Frame and Wooden Section BUILDINGS; Steel and Cast-iron TUBING up to 24in.—CYMRIC TRADING CO., LTD., Llandaff, Cardiff.

**PLANT WANTED**.  
Caterpillar D8 and D7 ENGINES, with Radiators and Tractor Clutches.  
Lister 1P4 GENERATORS, 20-KVA, 3-phase, 50-cycles. Caterpillar D79G, with or without equipments. Ruston 27RW WELL DRILL.  
Write Box P.3201, "The Contract Journal."

**FOR SALE**.—New and used Bristol Diesel CRAWLER TRACTORS, with Angledozer, Loading Shovels and Trench Diggers.—Demonstrations without obligation from the Main Dealers, H. A. SAUNDERS, LTD., 14-20 The Butts, Worcester. Telephone 26651.

**PLANT SALES, LTD.**, REQUIRE Two really good 1201 Lima DRAGLINE EXCAVATORS. If you have one, please offer it as quickly as possible. Please reply to 25 Castlereagh Street, London, W.1. Telephone: PADDINGTON 2663/5.

**FOR SALE**, 1955 Diesel Condo, fitted Bray Angle-dozer and Onions No. 10 C.C.U., £600 or offer. HUTTY, LTD., Chobham Road, Frimley, Aldershot. Telephone: Farnborough (Hants.) 342.

**CONTRACTORS' PLANT FOR HIRE.**  
HIRE PURCHASE OR SALE:

Selection from our comprehensive fleet of Modern Plant for immediate delivery:

**CRANES (standard gauge)**:  
18-ton Brownholt, Shunter, 50ft. Jib.  
10-ton Coles, Shunter, 40ft. Jib.  
10-ton Grafton, Diesel, 34ft. Jib.  
8-ton Wilson, Steam, 35ft. Jib.  
5-ton Grafton, new Diesel conversion, 35ft. Jib.  
5-ton Smith, 50ft. Jib (two).  
**CRANES (MOBILE ROAD)**:  
Lorain 10-ton Lorry-mounted, extendible Jib, 30/70ft.  
Ruston 10-ton, track-mounted, 40ft. Jib.  
Ransomes 8 1/2-ton, Diesel, 21ft. Jib, 1942.  
Coles 5-ton, Mark 7, on Thornycroft Diesel Chassis.  
Coles 4-ton, Diesel/Electric, new engine.  
Jones 3-ton, Super 40, Three available.  
Jones 2-ton, Super 20 and 22.

**DERRICKS**:  
7-ton Henderson, 110ft. Jib, 400/3/50, 1952.  
7-ton Anderson-Grice, 100ft. Jib, 400/3/50.  
3-ton Wilson, 70ft. Jib, Electric.  
5-ton Butters, 80ft. Jib, electric, new 1949.  
3-ton Smith, 47ft. 6in. Jib, single motor.

**EXCAVATORS**:  
Two each, 19RB and 10RB.  
Priestman Tigers, 3/4yd., new 1958.  
Priestman Wolf, 3/4yd., new 1957.  
Weatherill, 3/4yd. Loading Shovel.  
J.C.B. Hydra-Digga Loadall, 3/4yd.

**LOCOS**:  
Stephenson Diesel Locos, 150-h.p. (two).  
Barclay 80-h.p. Ruston 88-h.p., Diesel.  
Bagnall Steam, 14in. x 22in., oil-fired.  
Peckett Steam 7in. x 22in.

**BULLDOZERS**:  
Two D4, fully reconditioned, with Angledozer.

**PORTABLE BOILERS**:  
Mobile Oil-fired Economic, on pneumatics (1,500lb. evaporation); also Static Coal-fired Cochran Cross Tube and Crane Boilers.

**AIR COMPRESSORS** (on pneumatics):  
210 c.f.m., 100 p.s.i., Diesel.  
Four 105 c.f.m., 100 p.s.i., Diesel Broomwade.

**ROLLERS**:  
12-ton Aveling, Diesel.  
9 1/2-ton Marshall, Diesel.  
2 1/2-ton Aveling, Diesels (three).

**DUMPS**:  
Foden 8 and 12 cu. yd., nearly new.  
Three Muir-Hill 14B, Diesel, 4 1/2yd.  
Two Muir-Hill 10B, 2 1/2yd.

**CONCRETE MIXERS**:  
Millars 14/10 Diesel-driven.  
Winget Roller Pan Mixer, Diesel, 4ft. 6in. pan.  
Contractors' Pumps, Roadforms, Flexible Hoses (4in. to 10in.), Steel and Cast-iron Pipes up to 20in., Electric Motors, Diesel Engines, Portable Crushing Plant, Light Railway Equipment and Locomotives, Scaffolding, Fittings, etc.

**FRED. WATKINS (ENGINEERING), LTD.**, Coleford, Glos. Telephone 2271/2.

**WANTED FOR EXPORT.**

Caterpillar TRACTORS D8, 2U and 14A, 15A.  
EUCILDS, 9yd. and 15yd.  
Lima EXCAVATOR 1201, with Dragline and Shovel. 3/4yd. EXCAVATORS, with Dragline and Shovel.

3DW21 and D9 TRACTOR.  
METAL UNION (PLANT), LTD., 75 Victoria Street, S.W.1. Victoria 4868/9.

**FOR SALE**, Bray Crawler LOADING SHOVEL, 1958 model, in very good condition. Can be seen working.—Apply F. P. MARTLAND, Brook House, Prey Heath Road, Mayford, near Woking, Surrey. Tel: Woking 4389.

**FOR SALE**, Fiat FL55 ANGLEDOZER, Serial No. 51 6292, hour meter 5,792. Price £700 where lying. May be inspected by arrangement in Middlesex. Write Box P.3199, "The Contract Journal."

**FOR SALE**, Aveling-Barford 4 1/2 cu. yd. DUMPER, new November, 1958, worked 18 months, overhauled, in good condition.—Apply Garage Dept., STEEL PEECH AND TOZER, Rotherham.

**WANTED**, 38RB EXCAVATOR, good modern machine, with any equipment.  
Write Box P.3165, "The Contract Journal."

**NOBLE PLANT AND ENGINEERING CO.**

143 Hershham Road, Walton-on-Thames, Surrey. Telephone: Walton-on-Thames 23693/7.

**PLANT FOR SALE or HIRE**.  
Manitowac Model 3000 Caterpillar, D13000 Engine.

Dragline.  
38RB, Dragline or Shovel.  
22RBs, any equipment.  
19RBs, any equipment.  
10RBs, any equipment.

Priestman Wolf 111B, No. 6468, Dragline, Skimmer or Backacter.  
NCK, Dragline or Shovel, A.E.C. Diesel, 1955.  
Hudsons SIDE-SKIPS, 24in. gauge.

**LOW-LOAD TRAILER**, Designed for carrying Bristol Tractor.  
Parker Mobile CONVEYOR.  
Johnson 30cwt. DUMPER, 1954, excellent order.

Muir-Hill 10BD 3yd. DUMPER, Ford Diesel, 1955, reconditioned.  
Two Priestman 27/25 Ring Discharge GRABS.  
Stothert and Pitt 10/7, 14/10 and 21/14 Diesel.

**CONCRETE MIXERS**.  
PORTASILO, Model P.20.  
Broomwade SVD1 COMPRESSOR, Lister Diesel, 1953.  
Broomwade SVD2 COMPRESSOR, Lister Diesel, 1953.

Two Lister 26in. SAWBENCHES, Petrol or Electric.  
Caterpillar D4, D7, D8 and D9 TRACTORS.  
Caterpillar Track LOADERS.

HT4, 933 and 955 International Track LOADERS.  
BT06 and TD9 Track LOADERS.  
Allis-Chalmers HD5G and HD6G TRACTOR SHOVELS.  
SCRAPERS, 4yd.-20yd.

Five Johnson RAMMERS.  
**NOBLE PLANT AND ENGINEERING CO.**, 143 Hershham Road, Walton-on-Thames, Surrey. Telephone: Walton-on-Thames 23693/7.

**PLANT FOR SALE**.  
Caterpillar 955 TRAXCAVATOR, with cab and lights.  
Caterpillar No. 6 TRAXCAVATOR. Overhauled.

Caterpillar 977 TRAXCAVATOR, with cab and lights.  
Caterpillar D4, Models 2T and 6U, with Angledozer or P.C.U.

International BT06, with Hydraulic Angledozer.  
Priestman Cub V, with Dragline Equipment.  
Onions 15/21 Open Bowl SCRAPERS, almost new.

E.R.F. 15-ton ARTIC. LOW-LOADER.  
ROBERTSON PLANT, LTD., Barkway (Tel. 277), Herts.

**LIEBHERR TOWER CRANES FOR HIRE**.  
15H Climber, unlimited period. Available now.  
25HB Static, five months' hire. Available now.

50A Rail-mounted. Available early December, 1960.  
56A/72 Rail-mounted. Available early December, 1960.

Apply **THE UNIT CONSTRUCTION CO., LTD.**, Faggs Road, Feltham. Telephone Plant Manager: Feltham 5751.

**FOR SALE**, Six Johnson Diesel DUMPS, 1 cu. yd. and 1 1/2 cu. yd., Petter Diesel Engines. All machines in good condition.

**DUDLEY VALE, LTD.**, 3 Buckingham Place, London, S.W.1. Victoria 0252.

**AVAILABLE FOR HIRE**: EXCAVATORS, BULLDOZERS, DUMPS, MIXERS, COLES CRANES, etc. All classes of LOBBIES, including Low-loaders.

**AMEY'S AGGREGATES, LTD.**, Lower Wootton, Boars Hill, Oxford. Oxford 35421.

**FOR HIRE**—D25 Linden CLIMBING CRANE, capacity 1-ton at 82ft., 30cwt. at 55ft. Available end January 1961.—CLIMBING CRANES, LTD., 52 54 High Holborn, London, W.C.1. Telephone: Holborn 0131.

**FOR SALE**, Three 14 cu. ft. Road Machines TWIN WEIGHBATCHERS, on pneumatics, new 1954 56, used very little, £110 each.—J. M. HILL AND SONS, LTD., Heathway Park Drive, Wembley, Middlesex. Tel: Wembley 7781.

**WANTED**, ALL TYPES OF CLETRAC TRACTORS, any condition.—State Serial No. and price required.—C. J. THORNE AND CO., LTD., Uckfield, Sussex. Telephone 178 (3 lines).

**WANTED**, One Single-deck VIBRATOR, approx. 6ft. x 4ft.—Apply C. A. E. C. HOWARD, LTD., c/o Newark Road Garage, Ltd., Bracebridge, Lincoln.

**WANTED**, 15BE EXCAVATOR.  
Write Box P.3185, "The Contract Journal."

**FOR HIRE**  
Drott Skid Shovels with 4 in I Buckets  
Compressors 110 to 630 cu. ft.  
Vibrating Rollers  
Dumppers  
Diesel Driven Pumps  
Concrete Mixers  
Hoists  
Portable Diesel Welding Plants  
Crane Skips, Winches, etc.  
**JOSEPH THOMPSON & CO. (LIVERPOOL) LTD.**  
Wakefield Road, Netherton  
Liverpool, 10  
Tel: Aintree 6262

**MASSEY-FERGUSON**  
**PLANT HIRE**  
**SPECIALISTS**  
**3 IN 1**  
**TRACTOR**  
**DIGGER SHOVEL**  
**JOHN H. FLUX**  
COBHAM 3745  
(SURREY)

**FOR HIRE**  
**SIDEBOOM TRACTORS**  
**TRACTORS**:  
HD7, HD10, HD14, Dozer or Scrapers.  
D4, D6, D8, Dozer or Scrapers.  
**TRACTO-SHOVELS**:  
HD5G, with 1 1/4 cu. yd. Bucket.  
HD9G, with 2 1/2 cu. yd. Bucket.  
**EXCAVATORS**:  
10RB, 19RB, all equipments.  
J.C.B. Hydra-Digga, all equipments.  
**DUMPS**:  
Aveling, 4 1/2 cu. yd.  
Rob Roy, 13cwt.  
**ROLLERS**:  
3-ton and 8-ton, Diesel.  
**CRANES**:  
3-ton and 10-ton, lorry-mounted.  
30-60ft. jibs.  
**PUMPS**:  
Sin. L. and F. Diaphragm.  
3in. Centrifugal.  
**MIXERS**:  
3/3 1/2, 7/5, 10/7, 14/10.  
**TIPPING LORRIES**:  
Austin 6 x 4.  
All inquiries to:  
**G. CARTER & SONS, LTD.**  
YOKESFORD HILL, ROMSEY, HANTS.  
Telephone: Braishfield 398/6/7.

**LORRY-MOUNTED CRANE HIRE**  
Capacities: 4 · 5 · 6 · 10 · 15 · 20 · 22 1/2 · 25 tons  
JIB LENGTHS: 25' to 140'



**FREDERICK ATTWOOD LTD.**  
257-273 Wood Street,  
Walthamstow,  
London, E.17  
COPpermill 1151 (7 lines)

## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

**ELLIOTT BROS. (WORTLEY), LTD.**

**EXCAVATORS:**  
Smith 2/10 3/4yd., 16000 Series, F/S, Skimmer, Backer, Fowler Diesel, Oxford, £650.  
Smith 2/10 3/4yd., Backer/Skimmer, Fowler Diesel, £650.  
Smith 2/10 3/4yd., Dragline, Perkins (electric start), £430.  
Ransomes and Rapier 3/4yd., Perkins P6 Engine, 40ft. start, 3/4yd. Grab, very clean, £900.  
Coles Super 40 Crawler Crane, very clean and good, £700.  
Ransomes and Rapier 3/4yd., Perkins (electric start), Dragline, £480.  
One Fiat 55L Angledozer, donkey start, lever control, £450.  
Ruston 14RB, old machine but sound, new cab, air start, Luffing Shovel and Dragline, £500.  
One Ruston LOCO, Diesel, 24in. gauge, excellent, with running spares, £200.  
Coles Super 40-ton ROLLER, Sprinklers and Aveling-Barford 10-ton ROLLER, £650.  
Fowler Crawler TRACTOR, 3-cyl. Diesel (electric start), good tracks, £130.  
Caterpillar 66, old machine, Angledozer and Logging Winch, £275.  
David Brown TRACTOR, for Spares, 6-cyl. Engine, good tracks, £130.  
Link Belt Speeder CRANE, 5-ton, Petrol, £800.  
**EQUIPMENT AND SPARES:**  
Smith Super 10 FAIRLEAD, new, £45.  
Smith B Universal JIB and FACE SHOVEL, £70.  
Smith 2/10 Universal JIBS, £45.  
Smith Backer BUCKET, £45.  
Smith Skimmer BUCKET, £40.  
Ruston 17RB ENGINE, needs overhaul, complete with electric start, £90.  
NCH BACKER, FACE SHOVEL or SKIMMER, £140.

NCH Dragline JIB, 40ft., £80.  
Westwood GRABS, 1/2yd. and 3/4yd., £110.  
All used 2/10 or NCH SPARES.

**QUARRY PLANT:**

30in. x 18in. Parker Monarch CRUSHER, overhauled, £900.  
16in. x 9in. Parker CRUSHER, with International Power Pack, Diesel, buyer to dismantle, or we can arrange, £350.  
Three QUARRY SKIPS, circular, 1/2yd., £20 each.  
One 40-h.p. Fowler DIESEL ENGINE, 1,000 r.p.m., electric start, 50-h.p. at 1,100 r.p.m., £100.  
Atlas COMPRESSOR, excellent except broken crank on Dorman 4DWD Engine, £95.  
Alley COMPRESSOR, two pneumatic wheels, 3-tool, Lister Diesel, 1954, good, £225.  
C.P.T. COMPRESSOR, Petrol, 160 c.f.m., £80.  
Holman COMPRESSOR, lorry-mounted, Lister Diesel, with Hoses and Drill, £220.  
Low-Load Articulated TRAILER, 10ft. 6in. in well, 8/10-ton, as standing, £125.  
Low-Load MACHINERY CARRIER, converted from coach, Diesel, excellent, £250.

**MISCELLANEOUS:**

One Ransomes and Rapier 6in. PUMP, 40ft. Hose, Petrol, £70.  
Several 2in. and 3in. DITTO, Petrol, £20 each.  
Johnsons 3in. PUMP, Petrol, with Hoses, £27.  
3-ton TRAILER, electric brakes, suitable for Jeep, £60.  
One LIFTING MAGNET, 24-V, works from generator or vehicle batteries, new, £150.  
GENERATOR, 110-V, Petter air-cooled, for site works, £130.

Glen Works, Deepcar, near Sheffield.

Telephone: Stocksbridge 3276.

Deepcar is six miles west of Sheffield, on A.516 (Woodhead Road).

**FOR DISPOSAL:** 300 tons STEEL SHEET PILING, A.F. Section 4 (Medium Tensile) in 75ft. lengths. Once driven. Available December/January, 1961. Write Box P.3187, "The Contract Journal."

**FOR HIRE:** 1956 Chasidise SHOVEL, Diesel, first-class condition. Very low hire rate for long period—JULL, LEC REFRIGERATION, Bognor Regis 2201.

**WANTED: CATERPILLAR TRACTORS, TRAXCAVATORS AND EQUIPMENTS:** not more than five years old.—Phone Rothwell 3258, or write JAW BONE WORKS, Wood Lane, Rothwell, Yorks.

**VERY** urgently required to PURCHASE, NCK205 or similar EXCAVATOR. Preferably not more than 5/6 years old. Equipment immaterial.—Write full details to Box P.3174, "The Contract Journal."

**PLANT BARGAINS—EX STOCK.**

1957 Rapier 7-ton Fast CRANE, Eaton 2-speed axle, pneumatics all round, Electric-start Diesel, £3,250.  
Rapier 8 1/2-ton Super Diesel/Electric CRANE, 50ft. Jib, £3,750.  
1956 Bray BL25, 1 1/4yd. Tracked Shovel, Fordson Diesel, rebuilding, £1,575.  
1957 BTD6 Drott, with B6K3 Skid-Shovel, driver's cab fitted, £1,750.  
1958 Chasidise 700 LOADMASTER, Cab, lights, power steering, £1,150.  
1957 Bray BL430, Diesel/hydraulic 4-wheel drive, Loading Shovel rebuilt, £1,450.  
1954 Weatherill 2H, Diesel/hydraulic, 3/4yd. Shovel, Cab, £475.  
1951 Bray Diesel HYDRA-LOADER, electric start, Cab, ex Council, £250.  
1958 Ferguson 35 Diesel De Luxe TRACTOR, Cab, live hydraulics and Rear-mounted Blade, £350.  
Two 5 1/2 4-ton ROLLER ATTACHMENT for Ferguson 35, as new, £150.  
1958 DINKUM MAJOR and Power Shovel, Cab, power steering, £1,750.  
1956 J.C.B. TRENCHER, on Fordson Diesel, Cab, two Buckets, £650.  
1954 DINKUM DIGGER, on Fordson Petrol Tractor, with Skid Front Hydraulic Shovel, £450.  
1957 DINKUM DIGGER, on Fordson Diesel Tractor, with Cab, £650.  
David Brown DB30 BULLDOZER, with Cab, very good, rear hydraulics, £575.  
1949 Blaw Knox 4yd. SCRAPER, Model BK40, on 1050 x 13 tyres, £250.  
1954 Chasidise 1/2yd. High-lift Wire Rope SHOVEL, Fordson Diesel, £375.  
Rapier 6-ton Petrol/Electric CRANE, on solid rubbers, £850.  
30cwt. Lorry-mounted High-lift CRANE, on Bedford chassis, £480.  
Morris 2 1/2-ton Petrol/Electric CRANE, first-class, £750.  
5-ton Aveling-Barford ROLLER, Ruston Diesel, 2-cyl., £525.  
6-ton Aveling ROLLER, single-cyl. Diesel Engine, old but very sound, £550.  
6 1/2-ton Greens W type Petrol/Paraffin ROLLER, Canopy, Sprinklers, £650.  
Wallis and Stevens 2 1/2-ton Diesel ROLLER, Sprinklers, £450.  
Aveling-Barford 3-ton Footpath ROLLER, 1949, £450.  
Rapier 410 EXCAVATORS, Diesel, Skimmer, Trencher and Face Shovel. From £950.  
Aveling-Barford 5-ton ROLLER, ex Ministry, Petrol, £475.  
Saga Junior and A.C.E. Midget SCAFFOLD CRANES, £85.  
Smith 2/10 EXCAVATOR, Face Shovel, Diesel, £400.  
Rapier 410 EXCAVATOR, Skimmer, Trencher and Shovel, Petrol/Paraffin, 1939, £350.  
7/8-ton Low-loading TRAILER, vacuum brakes, suitable Drott, £375.  
1,200-gallon TANK ex vehicle, £45.  
Pegson 4in. CONTRACTORS' PUMPS, 36,000 g.p.h., crated, ex Ministry and unused, Morris Engine, gift, £125.  
10/7 Stothert and Pitt Diesel Closed Drum MIXERS, 2-wheel pneumatic Trailer, £185.  
Double Bucket SWING WEIGHBATCHERS, 2 off, £145 each.  
5/3 1/2 Benford Petrol MIXER, four steel wheels, £50.  
5/3 1/2 Stothert and Pitt Petrol MIXER, trade in, £50, seen, £25.  
22 1/2cwt. Benford Mk. 7 Diesel DUMPER, Lister Engine, £285.  
12 cu. yd. Road Machines Two-compartment Steel BINS, on four wheels, £175.  
15cwt. Benford Mk. 3 Diesel DUMPER, very good, £195.  
14/10 Stothert and Pitt High Discharge MIXER, Petrol Engine, £125.  
14/10 Rex Closed Drum MIXER, Diesel, £300.  
4-kW Lister 230/1/50 ALTERNATOR SET, Petrol Engine, Isenthall AVR, £95.  
3-kVA Diesel Lister 230/1/50 ALTERNATOR SET, complete, £125.  
Hire Purchase. Spares. Service.  
WILLIAM R. SELWOOD, LTD.,  
Chandler's Ford, Hants. Phone 2981.

**CONTRACTORS' PLANT FOR HIRE.** EXCAVATORS, TRAXCAVATORS, BULLDOZERS, 7-ton Diesel ROLLER, 5-ton Mobile CRANES, MONORAIL TRANSPORTER EQUIPMENT, VIBRATORY ROLLERS, COMPRESSORS, MIXERS, PUMPS, etc.—Plant Dept. WM. TOWNSEND AND SONS, LTD., Higher Swan Lane, Bolton. Tel.: Bolton 10140.

**GRAYSTONS OFFER FOR SALE.**

E.1135.—10RB EXCAVATOR, 19200 Series, F/S Equipment, £2,000.  
E.1234.—19RB EXCAVATOR, 17000 Series, F/S or Dragline Equipment, £3,275.  
E.1196.—19RB EXCAVATOR, 9300 Series, Dragline Equipment, £1,400.  
E.1077.—24RB EXCAVATOR, 11200 Series, Dragline Equipment, £2,250.  
E.1220.—37RB EXCAVATOR, 8700 Series, F/S or Dragline Equipment, £3,750.  
E.1192.—38RB EXCAVATOR, 12500 Series, Dragline and F/S Equipment, £8,500.  
E.1140.—54RB EXCAVATOR, 21800 Series, F/S Equipment, £12,750.  
OP.225.—Two BTD6 TRACTORS, with Hydraulic Dozers, new 1958, very good condition, £1,250 each.  
TS.25.—Caterpillar 955 TRACTOR SHOVEL, 12A Series, new 1956, £3,850.  
TS.23.—Caterpillar HT4 TRACTOR SHOVEL, 1 1/4 cu. yd., £2,200.  
TS.17.—BTD6 Drott SHOVEL, 4-in-1, new 1957, £2,000.  
T.1069.—D7 Caterpillar TRACTOR 4T, 2000 Series, Cabdozer, very good condition, £2,350.  
TE.478.—Birtley and Caterpillar Model 8 0 SCRAPERS, good condition. From £2,300 each.  
TE.476.—20 cu. yd. Onions SCRAPERS, 1950/53 Models, good condition, £2,750.  
TE.472.—Aveling-Austin 99H GRADER, £1,700.  
C.955.—Jones KL66 MOBILE CRANE, Perkins P4 Diesel, new 1958, £4,300.  
C.948.—Coles Model 51710 15-ton MOBILE CRANE, new 1956, excellent condition, £7,450.  
C.901.—Coles Ajax Diesel/Electric MOBILE CRANE, 3-ton capacity, with 35ft. 9in. Jib, or would lift 7 tons with 19ft. 3in. Jib, £2,500.  
C.916.—Michigan T8K Lorry-mounted CRANE, 5-ton capacity, complete with Excavator Equipments, powered by Dorman Diesel Engine, £2,750.  
OP.219.—10-ton Morgan 2-motor Electric Derrick Double Drum, 120ft. Jib, with Boggles, excellent condition, £4,250.  
C.891.—Buildmaster TOWER CRANE, Model BDK150, new 1954, 2 1/2-ton capacity, excellent order, £1,150.  
R.174.—8/10-ton Aveling-Barford Tandem ROLLER, new 1956, very good condition, £1,500.  
CP.585.—Ransomes-Rapier Three 3/4 cu. yd. TRUCK MIXERS, on A.E. Diesel Chassis, £1,100 each.  
TR.223.—Allen-Parsons 16/60 TRENCHER, new 1954, Gardner Diesel Engine, 60in. Buckets, overhauled, £1,550.  
D.125.—Two Euclid Model 27FD Rear Dump TRUCKS, with Cummins Engines, £1,800 each.  
D.141.—Two Aveling-Barford 4 1/2yd. DUMPERS, powered by Dorman Diesel Engine, £575 each.  
D.147.—Muir-Hill 10B 3yd. DUMPER, Ford 4D Diesel Engine, completely rebuilt, £525.  
D.153.—Several Scammell 10-ton (8 cu. yd.) 4 x 4 DUMP TRUCKS, new 1956/57. From £2,700 each.  
A.619.—Broomwade 167 c.f.m. Lister Lorry-mounted COMPRESSOR, Bedford chassis, £325.  
OP.226.—FAIRLEAD and BUCKET for 802 Lima, £350.  
EQ.524.—DRAGLINE JIB, 70ft., for 802 Lima, £475. Number of Tower and Derrick Cranes available, from 30cwt. to 15-ton capacity—various models and makes to cover a comprehensive range.  
GRAYSTON PLANT AND ENGINEERING CO., LTD.,  
32 Stewarts Road, London, S.W.8.  
Tel.: Macculay 6688 (10 lines).

**FOR SALE.**

Two Allis-Chalmers HD20 TRACTORS, with Scrapers: very good condition. One with Bulldozer, £6,000 or near offer.  
Caterpillar D7 TRACTORS and Scrapers also available.  
E. DOE AND SONS (CONTRACTS), LTD.,  
Fyfield, Ongar, Essex.

**LIMA 1201 Heavy-duty CRANE,** fully rigged with genuine American 100ft. Boom and jure to British maximum rated capacity, fully insured. Available for HIRE with skilled operator.

**PLANT SALES, LTD.**

28 Castlereagh St., London, W.1. PADDINGTON 2683/8.  
**FOR SALE:** 6in. Sykes Centrifugal PUMP, powered by Lister Twin Diesel, mounted on four steel wheels. — WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

**FOR SALE:** Butters 7-ton Two-motor Electric Derrick CRANE, 120ft. Jib, very good, £3,000. Write Box P.3166, "The Contract Journal."

# GET RID OF YOUR WATER

All types of  
**PUMPS**  
Available for Hire  
**EX STOCK**  
**W. A. DAWSON LTD**  
LUTON 52203

# DUMPERS

by Thwaites  
In which we Specialise



Please forward your enquiries for  
new and secondhand machines to

**NEALE-WRIGHT**  
& COMPANY LTD.

COVENTRY ROAD, CUBBINGTON  
LEAMINGTON SPA

Telephone: Leamington Spa 924 and 925  
London—Gladstone 8574

Hire it from  
**ABELSON**

Phone: SHEldon 2424

# FOR HIRE

CONTRACTORS  
PLANT  
AND LOW  
LOADING  
VEHICLES  
OF ALL TYPES  
AND SIZES

A.E.FARR (Plant Hire) LTD

WESTBURY • WILTS • Tel: 256 (5 lines)

## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

**WILSON PLANT HIRE** offer the following:  
**Murex WELDING SET**, Type GB002, Serial No. 22675, 9-kW 30-V 300-Amp., with Perkins P4 engine, mounted two pneumatics, with towbar.  
**Murex WELDING SET**, Type GC002, Serial No. 34112, 9-kW 30-V 300/400-Amp., with Perkins P4 engine, mounted two pneumatics, with towbar.  
 Broadbent 14in. x 54in. S.S. Centre LATHE, motorised, 3 1/2in. hollow mandril, 12 spindle speeds, 6.7-230, c/w 24in. face plate and 12in. 4-jaw chuck.  
 One Dorman 405 CYLINDER HEAD.  
 One 4in. Auto Diesel CENTRIFUGAL PUMP.  
 Several Parker 5/31/2 CONCRETE MIXERS.  
**SKIMMER BUCKET** for Tiger Mk. V Excavator.  
**WILSON PLANT HIRE, LTD.**  
 Weedon Road, Northampton. Telephone 4653/4.

**CHEAP DIGGERS.**  
 Rapiel 410, new 1939, Skimmer, Trencher and Face Shovel Equipment, Petrol/paraffin Engine, £350.  
 Rapiel 410, Ailsa-Craig Diesel, Skimmer, Trencher and Face Shovel, £475.  
 2/10 Smith, Fowler Diesel, Trencher Equipment, with 15in. and 18in. Buckets. Also 28ft. Tubular 2-piece Dragline and Bucket. Sound machine; at Exeter. £575.  
 1946 2/10 Smith, Fowler Diesel, steel cab, Face Shovel Equipment, £400.  
**WILLIAM R. SELWOOD, LTD.**  
 Chandler's Ford, Hants. Phone 2981.  
 And Exeter, Devon. Phone 72375.

**RAILS, RAILWAY LINE ATTACHMENTS, RAILWAY SLEEPERS** of all grades and CROSSING TIMBERS from 6ft. 6in. to 20ft. long for SALE. Deliveries ex stock. State use required for.—**F. HIRD AND SONS**, Armthorpe, Doncaster. Telephone: Armthorpe 339.

**ONE LIMA 1201 FORWARD SHOVEL EQUIPMENT**, the bucket of which has never been used is available for SALE.

**PLANT SALES LTD.**  
 25 Castlereagh Street, London, W.1. PAD. 2683/8.  
**DROTT SKID-SHOVEL**, 1958; Bedford TIPPER and TRAILER for SALE as complete unit, £2,150. Would sell Trailer separately, £110.—**CLARKE, LTD.**, 1a Tower Road, Epping. Tel. 3613.

**WANTED**, Multi-blade (Cactus) GRAB, any condition.—Written details and price to: **METAL RECOVERY AND STORAGE CO., LTD.**, Amersham, Bucks.

## BIG CRANE EXCAVATORS

Several for Sale

**A.R.C. MOTOR Co. Ltd.**  
 REDHILL WORKS, ARNOLD, NOTTINGHAM  
 Telephone: 26-3331/5

## GAZEWAY

## PLANT FOR SALE

19RB, 5000 Series, 3VQNB start, fitted 40ft. Dragline Equipment (present at work), £850.  
 304 Koehring 3 1/2yd., Gardner 6LW, fitted 45ft. Dragline Equipment, £2,450.  
 10RB, 12000 Series, electric start, fitted Skimmer, Backacter Equipment, Good order, £900.  
 10RB, 18000 Series, fitted Forward Shovel, 3VRH electric start, £1,450.  
 10RB, 19000 Series, fitted Skimmer, Backacter, Exceptional condition. Guaranteed, £2,000.  
 Priestman Wolf 111B, 3-cylinder Dorman, fitted Skimmer, Backacter, Recent overhaul, £1,500.  
 J.C.B. (June, 1959), three extra buckets, Square Hole Equipment, £1,400.  
 Allis-Chalmers HD5G TRACTOR SHOVEL, Reconditioned throughout, GM, Diesel, £1,650.  
 Allis-Chalmers HD5G TRACTOR SHOVEL, 1 1/4 Bucket, Overhauled, £1,350.  
 Allis-Chalmers HD5G TRACTOR SHOVEL, 1 1/4 Bucket, Rebuilt, £1,600.  
 4,800 Clark FORKLIFT, Petrol Engine, solid rubbers, Overhauled, £650.  
 Aveling-Barford T.R.V. TANDEM ROLLER, Fordson Diesel, 1954; 6/8 - ton WATER TANK SPRAYERS, £900.  
 Aveling-Barford 3-ton, 3-roll DIESEL ROLLER, Canopy, water tank, etc. Year 1950, £375.  
 Challenger III TRACTOR, Bray Hydraulic Angledozer, £850.  
 Caterpillar D7 7M TRACTOR, fitted Cable Dozer, £1,550.  
 Ruston SKIMMER BUCKETS, Good order, £45 each.  
 10RB RUSTON SPARES, 30 per cent. off list price.  
 NCK Dragline JIB, 40ft., £130.  
 NCK 5ft. INTERMEDIATE SECTIONS, £7 10s.  
 NCK 10ft. INTERMEDIATE SECTIONS, £15.  
 10B Muir-Hill 3yd. DUMPER, 14 Perkins Engine, new tyres. Recent overhaul, £350.  
 Shell LUB. OIL, S.A.E. 90, in 4 1/2 Jerricans, 17s. per can.  
 14/10 Ransomes MIXER, Petter Diesel. Good order, £250.  
 14/10 Stothert and Pitt, Petters Diesel. Good order, £275.  
 Rex 18/12 Diesel (Ruston) CONCRETE MIXER, Weighgear and Mould Shovel, £400.  
 Two-tool, Lorry-mounted, C.P.Y. COMPRESSOR, on Thames Diesel Chassis, £375.  
 TD18 TRACTOR, completely rebuilt throughout, Bucyrus Hydraulic Angledozer, £1,650.

## GAZEWAY PLANT HIRE LTD.

Windmill Lane, Thames Ditton, Surrey.

Telephone:

EMBerbrook 2800/1 and 3588 (3 lines)

**FOR SALE.**  
**TOWER CRANE**, J. Weltz Model 12, complete with Rails and Skips, £600.  
 2-ton Electric WINCH, with motor, £50.  
 Self-dumping GRAB, Westwood 23/24, £125.  
**SAWBENCH**, 6in. Electric, Universal type, £115.  
 Stothert and Pitt 10/7 CD MIXER, Petrol, £75.  
**AIR COMPRESSORS**, SH50 to 600 c.f.m., Petrol Diesel and Electric. Price on application.  
 Priestman 53/27 HEAVY GRAB, 3-rope, £100.  
 New MOBILE SITE OFFICES, fitted, from £350.  
**CRANE SKIPS**, 2 cu. ft. to 2 cu. yd. capacity.  
**CONCRETE PLACING WINCHES**, 1 1/2 to 2 cu. yd. capacity.  
**MACO PIPELAYING WINCHES**, 1-ton to 2-ton capacity.  
**ROAD FORMS**, 6in. to 10in. section.

**M.E. ENGINEERING, LTD.**  
 457 Finchley Road, London, N.W.3. Telegrams: Mengilim, London. Phone: HAMpstead 7481-2-3.

**FOR SALE.**  
 D7 3T Birtley Hydraulic ANGLEDOZER, Caterpillar 25 C.C.U., £3,250.  
 D7 3T CABLEDOZER, Le Tourneau P.C.U., £2,150.  
 D8 2U CABLEDOZER, Caterpillar 25 C.C.U., £2,100.  
 DBs and D7s stripped for SPARES.  
 12yd. L.P. and 9yd. L.S. SCRAPPERS.  
 Priestman Wolf DRAGLINE/CRANE, £385.  
 Caterpillar SPARES, Cheap to clear.  
 Diesel WELDING SET, dual operator, £210.  
 25-ton LOW-LOADER and Scamper, £1,200.  
**SULLIVAN PLANT HIRE CO., LTD.**  
 4 Denison Rd., Feltham, Middx. Tel. 4730/2664.

**FOR HIRE OR SALE.**  
 PC4 CONCRETE PUMP with 1,000 ft. Piping, 500 c.f.m. COMPRESSOR.  
 PORTASLO, P20 Model.  
 Broad's BRICK-HANDLING EQUIPMENT.  
 Winget MIXERS, 5/31/2, 7/5, 10/7, 14/10 Models.  
 Drag Feeders and Weighers available.  
 Weatherill 4HTW Two-way Oiler.  
**KINGSBURY PLANT CO., LTD.**  
 Barnsley Road, Doncaster. Tel. 65242 (7 lines).

**WANTED. WANTED. WANTED.**  
 Heavy EARTHMOVING MACHINES and EQUIPMENT of all types. Modern machines preferred, others considered. Immediate inspection; spot cash settlement. Write, giving full details and location, to **A.R.C. MOTOR CO. LTD.**, Redhill Works, Arnold, Nottingham. Telephone: Nottingham 26331/5.

**WANTED** urgently, Cleveland 110 TRENCHER. HERGARTH OF YORK. Tel.: York 55181/2.

WEATHERILL  
HYDRAULICF. E. WEATHERILL LTD  
USED EQUIPMENT DIVISION

We can meet your Used Loading Shovel requirements either at our main Works at Welwyn Garden City or our Depots at Walsall, Manchester, West Hartlepool and Bothwell.

1957 (Oct.) INTERNATIONAL DROTT Skid Shovel, Model 140. Completely overhauled, new tracks. Repainted in manufacturers colour. £3,500.  
 1958 (Nov.) WEATHERILL Hydraulic Loader, front-wheel drive, Type 14H, with 1 cu. yd. Scoop, Fordson Diesel Engine. With 10.50 x 16 steering and 1400 x 24 driving wheels, and driver's cab. £1,250.  
 1957 CHASESIDE Loadmaster 700, powered by Fordson Diesel Engine, fitted with 1 cu. yd. Scoop and lighting equipment, power steering, 900 x 16 front and 1400 x 24 rear tyres. £1,100.  
 1958 (Oct.) WEATHERILL Hydraulic Loader, Type 2HCRQ, with 3/4 cu. yd. Scoop with pointed toe plate, powered by Fordson Diesel Engine, 1400 x 24 rear tyres. £1,100.  
 1958 WEATHERILL Hydraulic Two-way Over-loader, Type 4HTW with Fordson Diesel Engine and 3/4 cu. yd. Scoop, driver's cab, 29 x 8 front and 1400 x 24 rear tyres. Overhauled by us. Choice of two. £1,050.  
 1957 CHASESIDE Loadmaster 700, powered by Fordson Diesel Engine, fitted with 3/4 cu. yd. Scoop with digger teeth, 900 x 16 front and 1400 x 24 rear tyres. £1,050.  
 1957 MERTON Overloader, with Fordson Diesel Engine, fitted with 1 cu. yd. Scoop with digger teeth, double-acting main rams and lighting equipment. This machine is in excellent condition, and all tyres are good. £900.  
 1956 (Dec.) CHASESIDE Loadmaster 500, powered by Fordson Diesel Engine, with 1 cu. yd. Scoop, power-assisted steering and lighting equipment, 1400 x 24 rear tyres. £850.  
 1956 WEATHERILL Hydraulic Loader, Type 2HCRQ, with Fordson Diesel Engine and 3/4 cu. yd. Scoop with pointed toe plate, 1200 x 24 rear tyres. £800.  
 1954 WEATHERILL Hydraulic Loader, Type 2H, powered by Fordson Diesel Engine, with 3/4 cu. yd. Scoop. Choice of three, all in exceptionally good condition. £495.

Ask for fuller details of these and other machines from our most comprehensive stock.

F. E. WEATHERILL LTD  
USED EQUIPMENT DIVISION

Tewin Road,  
 WELWYN GARDEN CITY, Herts.  
 Tel: Welwyn Garden City 4221-5

**CRANES FOR HIRE.**  
 15cwt. GM Neals Fully Mobile Diesel Crane, 18ft. Straight and 20/40ft. Telescopic Jibs.  
 15cwt. Jones KL15 Self-propelled Diesel Crane, 15/20ft. Straight Channel Jibs.  
 2-ton Neals Diesel Mobile Cranes, on pneumatics, 28/30ft. Straight Lattice Jibs.  
 3-ton Neals NMS Diesel Mobile Cranes, on pneumatics, 30/35ft. Straight Lattice Jibs.  
 3-ton Jones Diesel Crawler-mounted Cranes, 30/40ft. Straight Lattice Jibs.  
 4-ton Jones KL44 Diesel Crawler Cranes, 30/40ft. Straight Lattice Jibs.  
 4-ton Jones Diesel Mobile Cranes, on pneumatics, 30/45ft. Straight Lattice Jibs.  
 5th 21 approx. 10-ton capacity Crawler-mounted Cranes, 70ft. Box Lattice, with 10ft. Fly jib also available.  
 5-ton Coles Mk. VII Diesel Lorry-mounted Cranes, various length Jibs.  
 10-ton Coles Diesel Lorry-mounted Cranes, various length Jibs.  
 Hire your Cranes at most competitive rates from the Crane Specialists:

**MOORE'S PLANT, LIMITED.**  
 105-129 Markfield Road, Tottenham, N.15  
 Tel.: TOTtenham 0401 (10 lines).

**FOR SALE. STEEL SHEET PILES**  
 10 tons Appleby-Frodingham No. 2, lengths 15ft./16ft.  
 25 tons Appleby-Frodingham No. 2, lengths 12ft. Brand new.  
 112 tons Appleby-Frodingham No. 3, lengths 40ft. Brand new.  
 50 tons Appleby-Frodingham No. 3 and 4, lengths 40ft.  
 50 tons Larssen No. 3, lengths 40ft./50ft.  
 35 tons Larssen No. 3, lengths 26ft./35ft.  
**DUDLEY VALE, LTD.**  
 3 Buckingham Place, London, S.W.1. Victoria 0252.

**FOR SALE.—W.B.K.T. PUMPS (SUPPLIES), LTD.**  
 Heanton House, Salop Street, Wolverhampton, offer, ex stock, a comprehensive range of PUMPS, Hose and Equipment. Inquiries invited.  
 Telephone: Wolverhampton 21687.

**FOR SALE**, Butters 10-ton Three-motor Electric Bogies and Track.  
 Write Box P.3167, "The Contract Journal".

**FOR SALE**, Priestman Wolf, rigged for Clim shell. — **PLANT SALES, LTD.**, 25 Castlereagh Street, London, W.1. Tel.: Paddington 2683/8.

3/2 MIXERS 'Half-Bag'  
FOR HIRE

## 30/- PER WEEK

PETROL OR ELECTRIC—1 PHASE

**JOHN MACNAMARA & CO. LTD.**  
 Bush Rd., Deptford, London, S.E.8 Bermondsey 3275-1435

## FOR HIRE

## ALL BUILDERS' PLANT

Alloy and Steel Scaffold tube, boards, fittings, Acrow props, concrete mixers, etc.

Prompt delivery. competitive prices and terms arranged

## M. SANDERS LTD.

18/20 Medlar St., London, S.E.5. ROD 5143

PLANT NOW FOR A  
GOOD SPRING

## DIGGERS

Dinkums, Dinkum Majors, J.C.B.s, Fergusons, from £130 down, £6 10s. per week for two years. Cash price £650

## DUMPERS

Muir-Hills and Chasesides, Aveling-Barford, from £75 down, £3 10s. per week for two years. Cash price £375

## SHOVELS

Chasesides, Weatherills, Brays, all Hydraulic, from £160 down, £7 10s. per week for two years. Cash price £800

## SPECIAL

TD18A, in very good working order. Deposit £320 and £15 per week for two years. Cash price £1,600

MAIN DISTRIBUTORS OF  
 DINKUMS—DUMPERS—ROLLERS—  
 COMPRESSORS—TIPPERS—TRACTORS.

## DIAL-MEC LTD.

CAXTON HILL, HERTFORD

Tel. 3175/6 and 2456/7/8/9.

**MOORE'S WELDING SET HIRE**  
 Lincoln 300 amp portable diesel.

Tel:  
 TOTtenham  
 0401  
 (10 lines)



## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

## AIR COMPRESSORS.

Reavell Model D5A6E, 100 c.f.m. at 100lb. p.s.i., with 22-h.p. motor 400/3/50, all on C.I. bed. £250.  
Two 10ft. x 4ft. Vertical Pain. Plate Air Receivers, £185 each.  
Two Reavell 3-stage High-pressure Petrol-driven Sets, suitable Aqualung bottles, £100 each.  
Holman 2-tool T13D Trailer Compressor, Dorman 2DL Diesel, £325.  
Bristol new 2-tool Compressor, on Fordson 1953 Diesel Major Tractor, £750.  
One Bristol 30 c.f.m. Electric, 400/3/50 7.5-h.p. Stationary Set on Receiver 20in. x 58in., £165.  
WILLIAM R. SELWOOD, LTD.,  
Chandler's Ford, Hants. 'Phone 2981.

## WANTED BY CONTRACTOR.

Two 19RB EXCAVATORS, with Shovel or Dragline Equipment.  
One 22RB EXCAVATOR, with Dragline Equipment  
One Caterpillar D9.  
Three DW21s.  
One 451 SCRAPER.  
Three Caterpillar D7 Hydraulic ANGLEDZERS  
Model 3T.  
One Caterpillar D6 Hydraulic ANGLEDZER  
One Model 955 TRACTOR SHOVEL  
Two Caterpillar D4 Hydraulic ANGLEDZERS  
Send fullest details and price to:  
Box K.K.387. "The Contract Journal."

LEACH for Greens Griffin VIBRATING ROAD ROLLERS.—Write for details: HUBERT C. LEACH, LTD., High Street, Cheshunt, Hertfordshire. Telephone: Waltham Cross 25161.

WANTED, in Yorkshire, 4/6-ton capacity self-propelled MOBILE CRANE, Diesel, mounted on pneumatic.—Offers to Box P.3153. "The Contract Journal."

TRUCK MIXERS.—Latest type Transit Mixer, on new chassis, available for contract HIRE; any area.—For further details, write Box P.3189. "The Contract Journal."

WANTED, DB, 14A, 15A, with Dozer. Must be good machine.  
Write Box P.3135. "The Contract Journal."

WANTED, 20 cu. yd. HOPPER, with Flat Discharge Outlet.—Write: JANNICE BROS., LTD., c/o 45 East Street, Chichester.

**MECHANICAL ENTERPRISES LTD.,**  
DORKING ROAD, Gomshall, Surrey.

## PLANT FOR HIRE

LAND-ROVERS • DUMPERS,  $\frac{1}{2}$  or 1 cu. yd.  
CEMENT MIXERS • TIPPERS, 5 or 7 ton  
TRACTORS WITH FORE LIFT  
TRUCKS, LONG OR SHORT W/B  
VANS, 5 cwt.—2 ton

**MECHANICAL ENTERPRISES LTD.,**  
DORKING ROAD, Gomshall, Surrey.

Phone: Shere 204

**BEN TURNER & SON**  
(TRACTORS) LTD.

FOR SALES, SERVICE  
AND HIRE



**MASSEY-FERGUSON**  
INDUSTRIAL EQUIPMENT

PHONE:—  
RIPLEY (SURREY) 2481/2

## FOR SALE.

Caterpillar D4 and Birtley Dozer reconditioned £1,500.  
Caterpillar D2, fitted L.P.C. Dozer, £650  
Allis-Chalmers HD7W, fitted Baker Hydraulic Angle dozer and Double Drum Winch, reconditioned £950  
International TD18, fitted Dozer and Winch £680  
International TD9, fitted Dozer, £450  
International TD9, fitted Carco Winch, £350  
Le Tourneau 4yd. SCRAPER, £265.  
Broomwade COMPRESSOR, 3-tool, Petrol, £185  
Johnson COMPRESSOR, 2-tool, Petrol, £75.  
Dinkum DIGGER and Two Buckets, as new, £350  
Allis-Chalmers HD7, Tracks new.  
A.E.C. TRACTOR UNIT, fitted Gardner SLW Hands 15-ton, and Well Trailer, £450  
OIL High-grade Engine and Gear Oil in 4½-gallon Jerry cans, 25s. each.

ROBIN BOSWORTH  
Tel.: Stoke Salnt Milbro 237 Nr Ludlow Shropshire

## SURPLUS TO REQUIREMENTS.

One 54RB, No. 9765, Dragline Equipment, £7,500.  
One 54RB, No. 14069, Dragline Equipment, £7,500.  
One 22RB, Face Shovel, No. 22901, £6,000.  
One Track-Marshall BULLDOZER, No. 6840100, £1,500.  
One Bray LOADER, new tyres, No. 3198, Model B/L32, 1yd. Bucket, £850.  
All these machines are in sound working order and will stand any inspection.  
A. C. YATES AND CO., LTD., 12 Cathedral Road, Cardiff.

FOR SALE, Late Series International Drott 14K3 SKID-SHOVEL, with 2½ cu. yd. Bucket. Good order throughout. Reasonable price. Genuine offer. Write Box P.3188. "The Contract Journal."

STOUGHTON AND PITT 28W Vibro ROLLERS, for immediate delivery, £328 each.—ABELSON AND CO. (ENGINEERS), LTD. Tel.: SHELDON 2424.

LORAIN MC3 10-ton Lorry-mounted CRANE  
Write Box P.3133. "The Contract Journal."

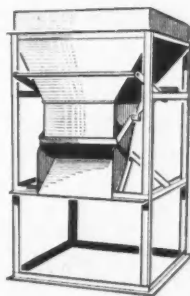
FOR SALE, Avery 35 tons WAGON WEIGHBRIDGE, automatic printing, 250-Volts A.C. Almost new. Offers to Box P.3194. "The Contract Journal."

WANTED, good 19RB and 22RB.  
Write Box P.3134. "The Contract Journal."

**KINGSTON PLANT**  
HANWORTH • MIDDX.  
FOR VIBRATING ROLLERS AND  
ALL PLANT HIRE  
FELTHAM 4084

HIRE **Bell** PLANT  
Drotts, Excavators, Compressors etc.  
HARROGATE 84800

**ABELSON**  
WET HOPPERS



1 cu. yd. floor mounted wet  
receiving hopper.  
Other sizes and types available.

**ABELSON**  
& CO. (ENGINEERS) LTD.

SHELDON • BIRMINGHAM 26  
Phone: SHELDON 2424 (10 lines)  
GRAMS: ABELSON, BIRMINGHAM  
ALSO AT LONDON & MANCHESTER

## FOR SALE.

Caterpillar D4, Serial No. 6U1043, Dozer Equipment, excellent condition. Price £950.  
Priestman Cub, Serial No. 84476, Skimmer and Backacter, electric start. Price £675.  
Huber ROLLER, Caterpillar Engine, Price £525.  
BTD6 TRACTOR, 40-h.p. engine, £600 recent overhaul. Price £800.  
KL40 CRANE, ex Ministry, Ruston Diesel, stored for 10 years, £425.  
Two Sykes 3in. RAM PUMPS, Ruston Diesel, £80 each.  
Liner Porta SAW, J.A.P. Engine, overhauled and painted, £80.  
2in. and 3in. Pegson WATER PUMPS, excellent condition; no hoses. From £20 each.  
Rapiier 410 SKIMMER TROLLEY, new, £10.  
12.5-KVA B.T.H. GENERATOR, 18-h.p. National Diesel Engine. Price £200.  
Ten Ferguson 35 DUAL CLUTCHES, complete, brand new, £5 each.  
MIDLAND CONTRACTORS PLANT REPAIR SERVICE  
7-9 Broad Street Jetty, Coventry. Tel. 89154.

REMEMBER that PLANT SALES, LTD., have the finest fleet of Heavy-duty Lima CRANES for HIRE. Consult them about your craneage problems.

PLANT SALES, LTD.,  
25 Castlereagh St., London, W.1 PADDINGTON 2663/5.

STEEL SHEET PILES and TRENCH SHEETS urgently WANTED. All sections bought; large and small quantities. Immediate payment.

DUDLEY VALE, LTD.,  
3 Buckingham Place, London, S.W.1. Victoria 0252.

FOR SALE, 6-ton Ransomes-Rapier Standard Petrol/Electric MOBILE CRANE, nice order. WILLIAM G. SEARCH, LTD., Whitehall Road, Leeds, 12. Tel. 639081 (10 lines).

FOR HIRE, 19RB and 33RB, TD and HD14s, and Marton OVERLOADERS—SAND AND SHINGLE LTD., Faggs Road, Feltham, Middx. Feltham 3048.

FOR SALE, Ace 15cwt. Diesel PLATFORM HOIST, with Soft. of Masting, £125.—A. E. LOWERY AND CO., Hyde, Cheshire.

WANTED, 10 x 6 and 12 x 7 BRICK and STONE CRUSHERS.—NORMAN WALKER (MACHINERY), LTD., Anlaby, Hull.

REQUIRED, Coles CRANE, 10/12½, lorry-mounted. Write Box P.3131. "The Contract Journal."

Rapid expansion has decreased us Greater  
London's Largest Fleet Owners of  
1960 1 yd. "DROTT" SKID SHOVELS



Always available for Hire  
Your personal contact: MR. RONALD GENT  
Tel: THORNTON Heath 3402/3/4

**POWER PLANT HIRE (Beddington) LTD.**  
Beddington Lane, Croydon, Surrey

## SECOND-HAND



## BARGAINS

1959 J.C.B. HYDRA-DIGGA/LOADALL 65, latest type all-hydraulic machine, mounted on Fordson 4D Diesel Tractor. Complete with all equipment and Backacter Bucket. This machine was the property of a contractor who went into liquidation. It was delivered in November, 1959, has worked only 158 hours, and is virtually as new .....£1,695

1958 J.C.B. HYDRA-DIGGA/LOADALL 65, latest type all-hydraulic machine, mounted on Fordson 4D Diesel Tractor. Complete with all equipment and Backacter Bucket. Regularly serviced and in very good order .....£1,450

1954 J.C.B. HYDRAULIC EXCAVATOR, mounted on Fordson 4D Diesel Tractor. Complete with Major Loader, Backfilling Blade and 18in. Backacter Bucket. Operator's Cab and Lighting. A very good runner, in sound order .....£780

from  
**Youngman**

W. C. YOUNGMAN LIMITED  
Wandsworth Works, Wandsworth Road, S.W.8.  
Telephone: MACaulay 2233.

**MOORE'S HOIST**  
Ace Comet mobile and Midget scaffold.

**HIRE**

Tel:  
TOTtenham  
0401  
(10 lines)

## PLANT AND MACHINERY WANTED—FOR SALE—FOR HIRE

**VALES PLANT REGISTER, LTD.**  
OFFER FOR IMMEDIATE SALE:

**MISCELLANEOUS:**  
**AVELING** 3yd. DUMPERS, 1957, £885 each.  
**MUIR-HILL** 108 3 cu. yd. DUMPERS, Ford Engine, 1954, good working order, £395.  
**MUIR-HILL** 143 4½ cu. yd. DUMPERS, Perkins Engine, 1951, very good order, £850 each.  
**LOW-LOADING TRAILERS**, 3-ton, 6.7-ton, 7.8-ton and 8.10-ton, ex Ministry. Also TRAILER-MOUNTED TANKS, 250, 500, 750 and 900 gallons.  
**BROOMWADE** SV128 2-tool COMPRESSORS, 1955, Diesel, pneumatics, £575 each.  
**AIR PUMPS** 2/3-tool COMPRESSORS, Lister Diesel Engine, on 2- or 4-wheel trailer or lorry chassis, ex Ministry, unused, £490 to £560 each.  
**GREENS** 30cwt. Tandem ROLLER, good working order, £275.  
**AVELING-BARFORD** 3-ton Diesel ROLLER, G800867, Ruston Diesel, Sprinklers, good condition, £495.  
**AVELING-BARFORD** 6/8-ton ROLLER, Sprinklers, Scarifier and Cab, new 1955, £2,050.  
**GREENS** 7/8-ton ROLLERS, new Ford Diesels, Sprinklers, Canopies, ex Ministry, £1,300 each.  
**PEGSON** 16in. x 9in. Portable CRUSHING AND SCREENING PLANT, Ruston Diesel, unused, as new, £750. Also 16in. x 5in. and 12in. x 7in. HD5G TRACTO-SHOVEL, G.M. Engine, 1955, £1,950.  
**933 TRAXCAVATOR**, 1958, 1½yd. Bucket, very good condition, £3,950.  
**955 and 977 TRAXCAVATORS**, various. Details on application.  
**D6 TRACTORS** and Dozers, overhauled, 8U Series. From £3,750.  
**ALLIS-CHALMERS** HD19 and HD20 TRACTORS, with Winches, from £1,750.  
**CATERPILLAR** D7 3T TRACTOR, L.P.C. Hydraulic Dozer and Winch, reconditioned, £3,100.  
**CATERPILLAR** D8 2U, P.C.U. and Cabdozer, very good condition, £1,750.  
**CATERPILLAR** D8 2U, 15000 Series, Birtley Hydraulic Angledozer, good order, £2,500.  
**WICKHAM** Diesel 3in. Diaphragm PUMPS and Hoses, first-class order, £175 each.  
**20-ton FRODINGHAM** 18 PILING, in 10/16ft. lengths. Once driven.  
**40-ton LARSEN** No. 3, 32/35ft. lengths. Good retrievable condition.  
**BAXTER** 36in. x 24in. CRUSHER, no motor, 1948, with Feeder.  
**PARKER** No. 1 Kubit BREAKERS.  
**HADFIELD** 20in. x 10in. Portable CRUSHER AND SCREEN, no motor, first-class condition, £875.  
**10-, 13-, 15-, 20- and 30-ton CEMENT SILOS**, with PORTASILO, ACROW, and BLAW KNOX.  
**CATERPILLAR** D4 2T and 7J TRACTORS, with Dozer Equipment, from £700 extra.  
**CATERPILLAR** D4 6U TRACTOR, base machine, £1,100.  
**BLAW KNOX** Mobile BATCHMASTERS, 21 cu. yd., 3-compartment, very good condition. From £400 each.  
**ALLEN** 16/60 TRENCHER, Gardner Diesel, late 1954, overhauled, £1,600.  
**A.E.C. HANDBY** LOW-LOADER, 1954, very good condition, £3,000.  
**WOODFIELD** 85/100ft. Universal PILE FRAME, Winch and Drophammer. Full details on application.

Further details: 14 Lower Grosvenor Place, London, S.W.1. VICTORIA 7531, 3501, 8080, 9886 (15 lines).

**RANSOMES AND RAPIER 410 EXCAVATOR**, fitted with Perkins P4 Diesel Engine, Skimmer and Backacter Equipment, in good working order, £550.  
**L. W. VASS, LTD.**, Amptthill, Bedford. Tel.: Amptthill 3285.

**ROAD ROLLERS WANTED**, by Aveling-Barford and Marshall, 6-ton, 8-ton and 10-ton; post-war models. Maker's number, particulars, lowest cash price.—A. M. COLE, Eastgate, Sleaford, Lincs. Tel. 463.

**FOR SALE or HIRE**, 21/14 Stothert and Pitt CONCRETE MIXER, Petter Diesel Engine. Built-in Weigher if required.—W. V. DAVIES, Concrete Mixer Service, Shipston-on-Stour. 'Phone 125.

**CRUSHING PLANT FOR SALE****JAW CRUSHERS AND GRANULATORS:**

16 x 9 Goodwin-Barbsy Crusader CRUSHER, with Blackstone Diesel, on steel wheels. Good condition, £400.  
 21 x 10 Broadbent. In good order, £300.  
 24 x 13 Hadfield Double Toggle, new 1946. Offered with various Spares. Very good, £675.  
 30 x 18 Parker, new 1958 and hardly used, £2,000.  
 New 30 x 16 Thomas and Foster Primary STONE BREAKER available for early delivery, £1,365. Lubricator extra. Send for quotation.

**HAMMER TYPE BREAKERS:**

New Bristol ROTOR MILL for reducing silica sand, clinker, coal, dry clay, etc. Bare machine, £194.  
 24 x 20 B.J.D. Flextooth, with 1½ screen bars, six vee-rope drive. Very good, £340.  
 Goodwin Ajax Size AA Portable, with Ruston Diesel and Rotary Screen. All on four steel wheels. Unused, £500.  
 Goodwin Ajax Size B, with Motor and £1,000 worth of Spares, £900.

**ROLLS AND GRINDING PANS:**

GRINDING PAN, 5ft. Boulton, underdriven edge runner, new 1959, with Motor, £700.  
 GRINDING MILL, 11ft. Whittaker, perforated base, with motor, starter, etc. Good, £440.  
 WET PAN, 9ft. Bradley and Craven, overdriven. Excellent, £825.

**GYRATORY AND OTHER TYPES:**

Kennedy No. 19 fixed-head ball-bearing gearless, with 35-h.p. motor and starter, etc. Unused, £1,250.  
 20in. Symons Standard, with coarse bowl, various spares included, £500.  
 2ft. Nordberg, with coarse bowl, without motor, £1,300.  
 2ft. Nordberg, with fine bowl. Unused since maker's overhaul, £2,150.

**ALAN R. DAVIES, LTD.**,  
 20 Whiteladies Road, Bristol, 8.  
 Telephone 36418.

**FOR HIRE****COMPRESSORS**

60—600 C.F.M.

**J. W. COX PLANT HIRE LTD.**

QUARRY BANK, BRIERLEY HILL, STAFFS.

Phone: CRADLEY 66695

**NEAGRON (CONSTRUCTION), LTD.**  
OFFER FOR SALE:

**RUSTON** 20-h.p. 2ft. gauge LOCOMOTIVE. Lister Diesel Engine. Used one contract only, £105.  
**ROAD MACHINES** 27yd. Batchmatic Batching PLANTS, one with 30-ton Silo. New 1958/59.  
**BROOMWADE** Model SYD1 2-tool COMPRESSOR. Lister Diesel Engine, four pneumatic-tired wheels. Overhauled.  
**BUTTERS** 7-ton 2-motor Electric DERRICK CRANES, 120ft. Jibs, Bowslips and Dumb Bogies. New 1951.  
**MORGAN** 10-ton Three Drum Steam DERRICK CRANE, 120ft. Jib, Safe Load Indicators and Oil-firing Equipment. New 1946.  
**LIEBHERR** 25HB 2½-ton Climbing CRANE, 65ft. 6in. Luffing Jib. Used one contract only. New late 1959.  
**JULES WETZ** Model G26 Tower CRANE, 85ft. 4in. Jib, 120ft. under hook. New 1956.  
**PINGON** Model P60 5-ton Tower CRANE, 99ft. Jib, 108ft. under hook. New 1957.  
**MUIR-HILL** 108 3yd. DUMPER, Ford 4D Diesel Engine, tyres 65 per cent. New 1954.  
**10RB ¾yd. EXCAVATOR**, Skimmer and Backacter and Dragline Equipments, Ruston 3VRH Diesel Engine. Overhauled. New 1952.  
**22RB ¾yd. EXCAVATOR**, 40ft. Dragline Equipment, Ruston 4YEN Diesel Engine (electric starting). New 1955.  
**33RB 1½yd. EXCAVATOR**, Dragline and Face Shovel Equipments. Overhauled. New 1954.  
**BENFORD** 18 12 Reversing Drum MIXER, Batch-weigher, Scraper Shovel and Feed Apron, Petter AVA2 Diesel Engine. New late 1958.  
**B.S.P.** 12B Single-acting STEAM HAMMER. New 1958.  
**B.S.P.** 100ft. Universal PILE FRAME, with 4-ton Single-acting Hammer and Sykes Treble Drum Winch. New 1951.  
**WEATHERILL** Model 2H ¾yd. LOADING SHOVEL, Fordson Diesel Engine, tyres 75 per cent. Overhauled. New 1954.  
**BRAY** Model BL45ST 1½yd. LOADING SHOVEL, Leyland Diesel Engine with Torque Converter, heavy duty pneumatic tyres. New late 1959.  
**CATERPILLAR** D8 15A Series Crawler TRACTOR, Hydraulic Bulldozing Equipment and C.C.U. 4,000 hours since new 1958.  
**INTERNATIONAL** Drott BD7 1yd. Tractor SHOVEL, with 4-in-1 Bucket. Overhauled. 3,500 hours since new 1958.  
**PONTOON**, 114ft. x 46ft. x 6ft., with 10-ton Steam Derrick Crane, 22-h.p. Boiler, 110 c.f.m. Compressor, Generators, Mooring Winches, Fuel Tanks and Accommodation.  
**5,000 3it. x 2ft. FERRO FORMS.**

**FURTHER DETAILS:**

Abbey House, Victoria Street, London, S.W.1.  
 Telephone: ABBEY 5152 (4 lines).

**BUCKET SPECIALISTS.**—Special or Standard SHOVEL, TRENCHER, GRAB AND DRAGLINE BUCKETS to suit all machines. Quick delivery. Write or phone the makers: **NORTONS PLANT HIRE, LTD.**, Billericay, Essex. Tel.: Ramdens Heath 365.

**FOR HIRE**, Lorry-mounted MOBILE CRANES, 3-ton, 5-ton, 7-ton and 10-ton Coles; 2-ton Hydracranes, Jib lengths up to 80ft.—COVENTRY CRANE HIRE, Brandon Road, Binley, Coventry. Tel.: Walsgrave-on-Sowe 3113.

**FOR SALE**, Three Pegson RAMMERS, Model MRM. All reconditioned as new and guaranteed.  
**DUNTON PRODUCTS**, Dunton Street, Leicester. Tel. 56029.

**THE CHEAPEST EXCAVATORS**

In the country are available from AXWORTHY.  
 10RB, 1000 Series, Back machine (Midlands), £550.  
 10RB, 13000 Series, Skimmer/Backacter, (Midlands), £1,300.  
 19RB, 9000 Series, Skimmer/Backacter, (London), £1,350.  
 19RB, 9000 Series, Dragline, (Midlands), £1,350.  
 19RB, 9000 Series, F/S or Dragline, (London), £1,750.  
 19RB, 13000 Series, Dragline or Skimmer/Backacter, (South Wales), £2,750.  
 19RB, 17000 Series, F/S (Scotland), £2,900.  
 19RB, 18000 Series, Dragline, (South Wales), £3,650.  
 19RB, 23000 Series, Dragline or F/S or Skimmer/Backacter, (South Wales), £4,950.  
 21RB, new 1943/44, Dragline or F/S, (London), £3,000.  
 22RB, 15000 Series, F/S, (London and Scotland), £3,000.  
 22RB, 19000 Series, Dragline, (South Wales), £4,250.  
 24RB, various series, Dragline or F/S, from £1,200 to £3,250.  
 33RB, 6000 Series, Dragline (London), £1,500.  
 33RB, 11000 Series, Dragline or F/S, (South Wales), £3,500.  
 33RB, 15000 Series, Dragline, (South Wales), £4,950.  
 33RB, 14000 Series, F/S (South), £5,350.  
 33RB, 14000 Series, F/S or Dragline, (Scotland), £5,750.  
 37RB, 3000 to 9000 Series, Dragline or F/S, from £2,000 to £5,750.  
 33RB, 23000 Series, Backacter (Midlands), £12,750.  
 43RB, 18000 Series, F/S or Dragline, (Scotland), £3,000.  
 NCK304, 1700 Series, F/S, (South Wales), £3,000.  
 NCK304, 1900 Series, F/S, (Midlands), £3,450.  
 Koehring 605, new 1946/47, Dragline, Crane or F/S, (North), £7,250.

All machines in good condition.  
 Ring Windsor 60668.

**AXWORTHY AND COMPANY, LTD.**

(Drofts for Hire).

Old Windsor, Berks.

**BUNKER CLAMSHELL GATES**  
LEVER OR AIR OPERATED  
ALL STEEL CONSTRUCTION

**MAXIM CONVEYORS**  
 (ENGLAND) LTD.  
 BELVEDERE • KENT  
 Ring ERITH 4223

**A. LONG AND CO., LTD.**  
OFFER FOR SALE:

**Ruston 21RB EXCAVATORS**, Dragline and Shovel, Lorain Models 40, 75, 77 EXCAVATORS with Dragline.  
**Dormobile ¾yd. EXCAVATOR**, all equipments, Fort Staffa-Bruneri, Shovel and Grab Equipments.  
**Stothert and Pitt Multi-bucket EXCAVATOR**, Electric Merton OVERLOADER ¾yd. Diesel.  
**A.B.G. CONCRETE FINISHER**, Deutz Diesel.  
**Caterpillar ELEVATING GRADER** 48in.  
**Caterpillar D4, D7, D8 TRACTORS**, various equipments.  
**Allen-Parsons TRENCHERS**, Models 25, 31, 12/18, 16/60.  
**Euclid Tractor SCRAPERS**, 12/16yd., Rolls-Royce and Leyland Engines.  
**Vickers TRACTORS** 180C and Vigor Cable Angledozer.  
**Flat TRACTOR**, Model 55L, Hydraulic Angledozer, Fordson County TRACTORS, MK3, Bray Angledozer, Carlisle GRADERS, Model 200, Leyland Diesel.  
**Blaw Knox CONCRETE PUMPS**, 6in., Electric and Diesel.  
**Buildmaster BDK150 TOWER CRANES**.  
**Butters 7-ton Derrick CRANES**, 120ft. Jib. Set of Bogies.  
**Butters 10-ton Steam Derrick CRANE**, oil-fired, 120ft. Jib and Bogies.  
**Woodfield 85ft. PILE FRAME**, with Winch and Boiler.  
**B.S.P. 70ft. PILE FRAME**, with Winch and Boiler.  
**Onions SCRAPERS**, Models 9C, 9K, 4M.  
**Le Tourneau Towled CRANES**, 1800 x 20 tyres.  
**Simplex LOCOS**, 24in. gauge, Diesel.  
**Vibro-Verker TAMPER**, Model MR16.  
**New Crossley ENGINE POWER UNIT**, suitable 120i Lima.  
**New Crosse PIPE CLEANING AND PRIMING and PIPE COATING AND WRAPPING EQUIPMENT**, Diesel-powered; also Ancillary Equipment and Wrapping Material.

**FOR HIRE:**

**Ruston EXCAVATORS**, all sizes, all equipments.  
**Allen TRENCHERS**.  
**Vickers and Caterpillar TRACTORS**.  
**Butters Derrick CRANES**.  
**Smith Steam Loco. CRANES**.  
**Muir-Hill DUMPERS**.  
 Agents and Distributors for: Air Pumps Reciprocating and Rotary Compressors; Armstrong-Whitworth Kue Ken Crushers, Albaret Compaction Rollers; Crosse Pipeline Equipment.

45 Parliament Street, Westminster, S.W.1.  
 Tel.: Whitehall 5064/5, 6577. Cables: Aylong, Per. London.

**SALE or HIRE**, 85-h.p. standard gauge Diesel LOCOMOTIVE, weight 16 tons, by Motor Rail.  
**JOSEPH PUGSLEY AND SONS, LTD.**, Bristol, 5. Telephone: Bristol 56037.

**FOR SALE**, Modern LIMA 2400 as Dragline with torque control and latest swing, in immaculate condition.—PLANT SALES LTD., 25 Castlereagh Street, London, W.1. Tel.: Paddington 266153.

**FOR HIRE or SALE**—EXCAVATORS, DOZERS, SCRAPERS, CRANES. Reduced rate for long hire.  
**ALLENS PLANT HIRE**, The Uplands, Malvern, Shropshire. Tel.: Ironbridge 2386.

**FOR SALE.**

70 tons STEEL TRENCH SEETING. Approx. 18, long x 4ft. wide x 11 12 gauge. This material is in first-class condition, and we can offer immediate delivery. Delivered site at very attractive prices. Write:

**COX AND DANKS, LTD.**  
 Frederick Road, Manchester, 6.

**FOR HIRE****COMPRESSORS—ALL TYPES****FRANK K. MILES**

COWBURN STREET, HEYWOOD, LANC.

Phone: HEYWOOD 6856

**PUMPING SLUDGE?**

you need a

**MUD MARVEL**

BUY

or

HIRE

from the

sole makers

**W. G.****SEARCH**WHITEHALL RD  
LEFDS 12  
LTD.



## Water spells trouble

*Excavation in waterlogged ground is, even at the best, a messy and uncomfortable job. It is wasteful in materials and therefore costly. If running sand is present, it can also be dangerous.*

*Fortunately there is a remedy.*

*Wellpoint pumping is the most successful method of lowering the water table. Sykes, with over a century of experience in pumping, have developed a wellpoint system with the important advantage that, once installed, it requires the minimum of attention. The Sykes Jetwell is a great advance on other types of wellpoints, combining very high efficiency with ease of operation.*

*The famous Sykes Univac self-priming centrifugal pumps, with their exceptional air-handling capabilities, are especially suitable for wellpoint installations. The range of sizes—2 in. to 12 in.—covers every dewatering application.*

*Let us help you with your dewatering problem.*

*Sykes Jetwell installations, complete with suitable pumps, may be purchased outright or hired for any period.*

# SYKES

DEWATERING  
EQUIPMENT

HENRY SYKES LIMITED

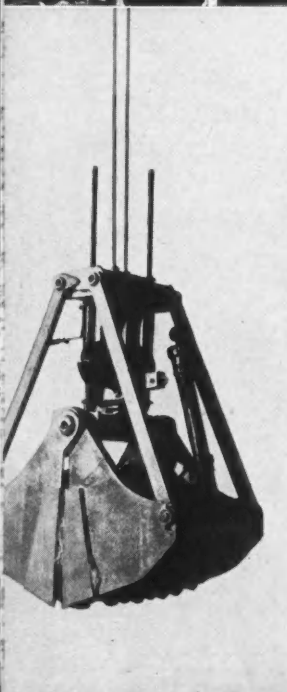
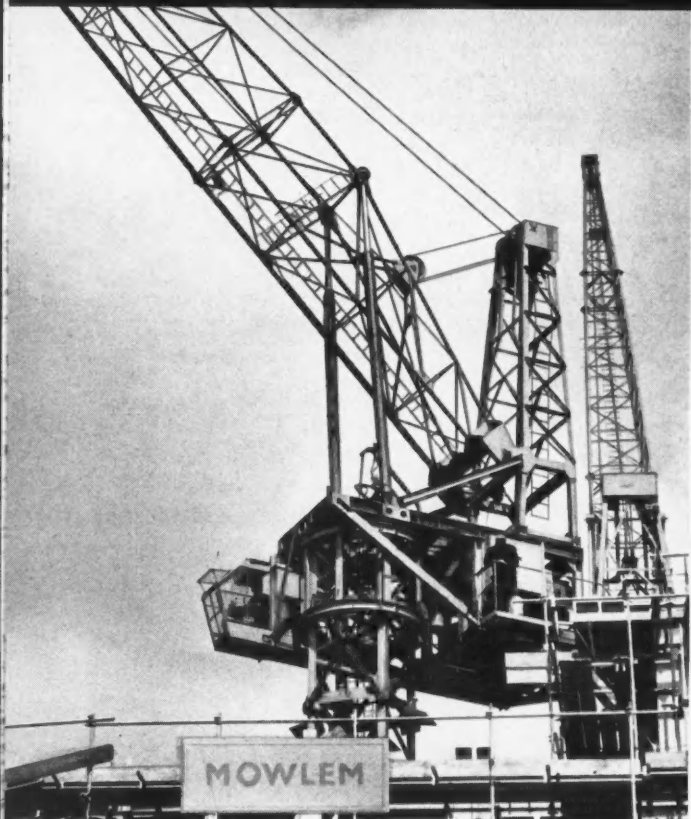
53B SOUTHWARK STREET, LONDON, S.E.1

TELEPHONE: HOP 5231 (8 LINES)

TELEGRAMS: TRIPULSE, SEDIST, LONDON



# Towercrane



## Universal Climbing / Monotower / Rail-mounted Cranes, Models 25 HB, 36 HB and 50 HB.

- ★ Operates on any congested Site. Minimum radius = tail radius - 11 ft. 6 in.
- ★ Easy tower extension. Crane always operates approx. 20 ft. above building height.
- ★ Four operations controlled by two joy sticks with 3/4 speed steps per operation, forward and back.
- ★ Level luffing - 100 ft. per minute, horizontal speed.
- ★ Up to 500 ft. per minute hoist speed.

Model	Maximum Radius		Minimum Radius		Hoisting speed ft/min.
	Radius ft.	Lifting capacity cwt.	Radius ft. in.	Lifting capacity cwt.	
25HB/S	66	25	11 5	49	200
36HB/S	85	27	11 5	59	197
50HB/S	99	34	11 5	78	197

## Telescopic Tower Cranes Models 14A/17 to 56A/72.

- ★ Erection and dismantling is faster than any crane of this size; completely from ground level.
- ★ Tower and jib solely under compression; ropes take all the tension.
- ★ Unsurpassed rigidity and accuracy of placing.
- ★ Safety, even on not completely level track—all ballast at ground level.
- ★ Telescopic tower enables erection on congested sites.
- ★ Road transport, completely assembled.
- ★ Four operations controlled by eccentric drum controllers with up to 7 speed steps per operation in either direction. Can be operated simultaneously and guarantee highest speed and accuracy of operation.

Model	Radius ft.	Lift capacity cwt.	Height of pulley	Hoisting speed ft/min.	Slewing speed r.p.m.	Travelling speed ft/min.
14A/17	20-53	17-35	76-110	65/147	1-3	115
20A/25	20-59	22-47	83-122	65/164	1-2	115
25A/30	26-66	25-55	92-135	65/164	1-2	115
35A/45	32-82	27-59	116-168	79/184	1-0	130
45A/55	36-99	30-73	139-204	79/184	1-0	130
56A/72	39-108	34-79	158-232	79/213	2-0	130

From foundation to the last brick Tower Cranes Grabs are unparalleled for fast, wide and hard cutting. They are lightweight, easy to handle and safe.

**Mobile Universal Building Crane. Models 6A, 8A and 11A.**

- ★ Immediate readiness for use on arrival on site; 30 minutes erection.
- ★ Can operate on pneumatic tyres or rails.
- ★ Four multi-speed step operations can be carried out simultaneously.

Model	Maximum Radius		Hoisting speed ft/min.
	Radius ft.	Lifting capacity cwt.	
6A	42' 6"	8½	131
8A	49' 3"	8½	131
11A/13	59' 0"	8½	335

Model	Minimum Radius		Hoisting speed ft/min.
	Radius ft.	Lifting capacity cwt.	
6A	16' 3"	21½	131
8A	23' 0"	18½	131
11A/13	21' 3"	23	335



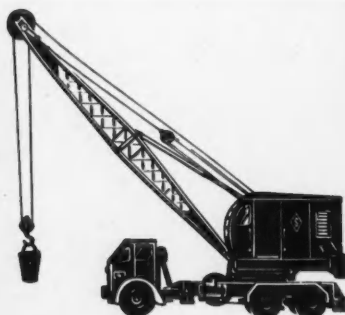
*gentle giants*



**TOWER CRANES  
LIMITED**

39 VICTORIA STREET, LONDON, S.W.1  
Tele: ABBEY 6806

**GROUP  
GIBSON  
SERVICE**



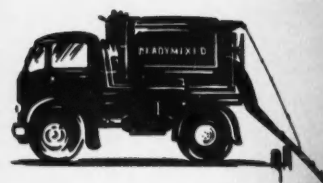
**PLANT HIRE**

**GROUP  
GIBSON  
SERVICE**



**PLANT SALES & SERVICE**

**GROUP  
GIBSON  
SERVICE**



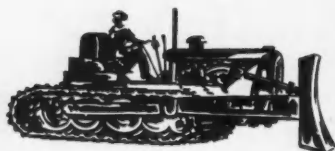
**READYMIXED CONCRETE**

**GROUP  
GIBSON  
SERVICE**



**PLANT MAINTENANCE**

**GROUP  
GIBSON  
SERVICE**



**SUB CONTRACT**

**GROUP  
GIBSON  
SERVICE**



**MATERIALS**



# AVAILABLE NOW!

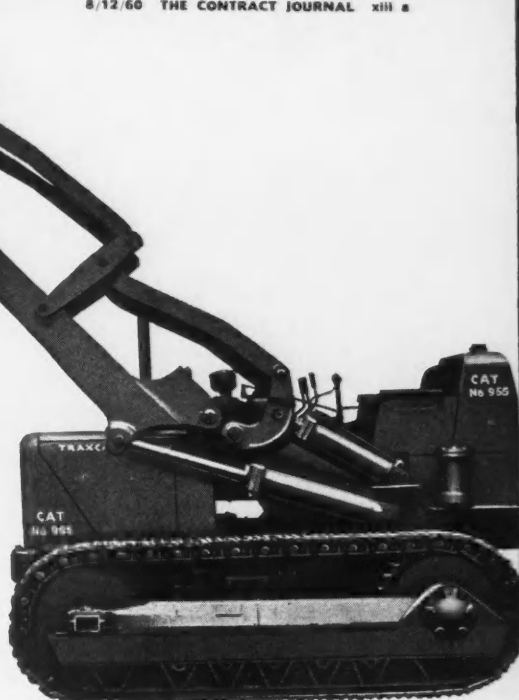
## BRITISH-BUILT CATERPILLAR 955F TRAXCAVATOR

with greater power, operational ease and hydraulic efficiency - speeds work cycles, cuts production costs.

\*1½ cu. yd. Bucket; 70 Flywheel H.P.; \*Dumping reach at max. dumping height—40½" (45° discharge angle);

\*Lifetime-Lubricated Rollers and Idlers;

\*Weight 22124 lbs.

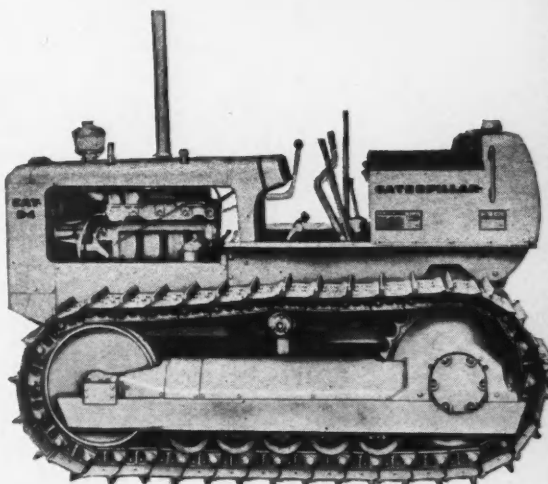


## BRITISH-BUILT CATERPILLAR D4C TRACTOR

ALL-NEW - with greatest power in its class for all earthmoving jobs. Exceptional speed, versatility, operating convenience.

\*65 Flywheel H.P.; \*60" Gauge; \*Forward Reverse Lever;

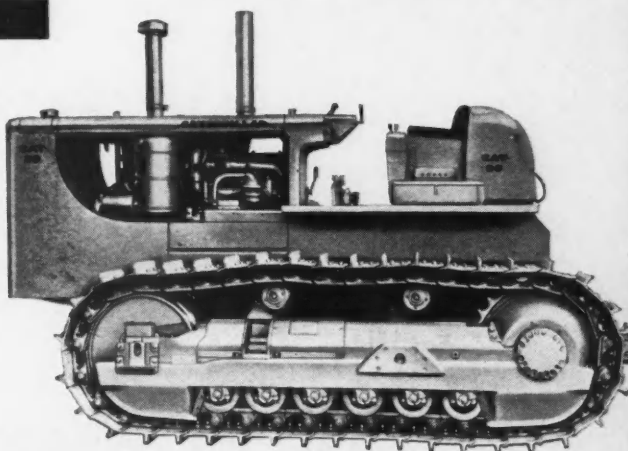
\*Dry-type Air Cleaner; \*Weight 11710 lbs.



## BRITISH-BUILT CATERPILLAR D8H TRACTOR

Direct Drive or Torque Converter Transmissions and NOW POWER SHIFT TRANSMISSION for split-second on-the-go shifts of speed and direction under full load.

\*235 Flywheel H.P.; \*Lifetime-Lubricated Rollers and Idlers; \*In-seat Starting; \*Dry-type Air Cleaner.



# FRED MYERS

YOUR CATERPILLAR DEALER

**FRED MYERS LTD.** SALES: 24 Bruton St., London, W.1. Hyde Park 6911

SERVICE: Maidenhead Rd., Windsor, Berks. Windsor 1913  
Chart Rd., Ashford, Kent. Ashford 1771  
Southend Arterial Rd., Brentwood, Essex. Herongate 251

Caterpillar, Cat and Traxcavator are Registered Trademarks of Caterpillar Tractor Co.

# S & F

## STANDARD STEEL



### Wide range of types and sizes

Tied portal, Clearportal, Crane and Sawtooth (northlight) buildings are available, each type being produced in a wide choice of spans and heights . . . a comprehensive range of buildings designed to serve almost every industrial requirement.

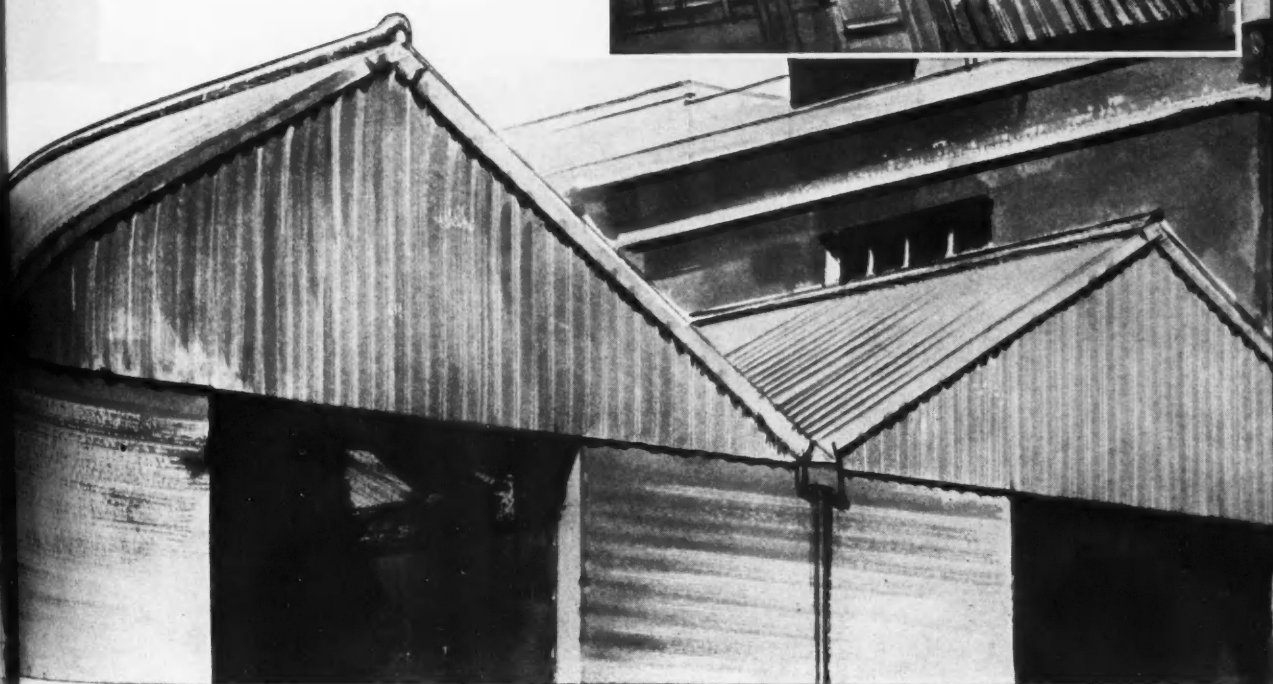
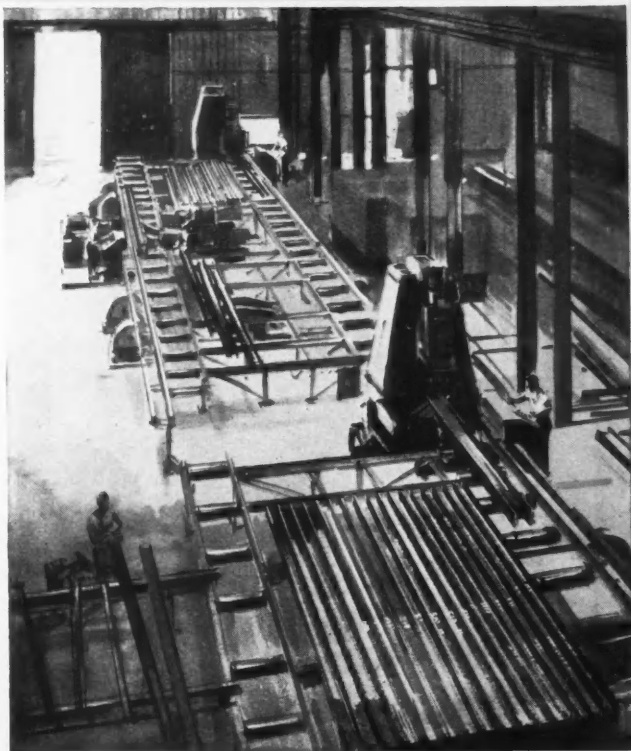
### Adaptability, Speed and Simplicity

S & F buildings are *permanent* structures and can be extended on all sides as and when the need arises. Frame spacing of 20 ft. reduces foundation and maintenance costs . . . speeds erection.

S & F Unified Site Control is an all-embracing service

# BUILDINGS *COST LESS* BECAUSE...

... a completely mechanised fabricating technique reduces costly man-handling of materials... reduces labour requirements... keeps work flowing smoothly and fast... makes *big savings in production costs* — *savings that are passed on to the purchaser.*



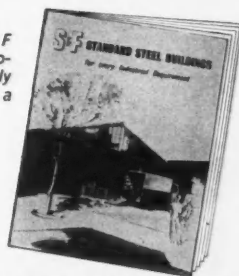
covering steel erection, cladding and insulation by SANDERS & FORSTER'S own skilled teams—a service that ensures completion on time.

S & F standard buildings are being erected at the rate of 2½ million square feet each year, serving industrial activities in the United Kingdom and overseas territories in widely varying climatic conditions.

**SANDERS & FORSTER**  
LTD

ONE OF THE CHAMBERLAIN GROUP OF COMPANIES

*This Brochure illustrates how S & F buildings can solve factory accommodation problems quickly, permanently and at low cost. Have you had a copy?*



(Dept: C. J. 18)

3 BUCKINGHAM PALACE GARDENS, LONDON, S.W.1.

Telephone: SLOane 0833 (10 lines). Cables: Sanforsted, London.





20-Ton Ruston Transit Crane

# HIRE from ARUPS

- 5-25 Tons capacity • Jibs up to 120' with 15' to 30' flying jibs
- also all sizes mobile cranes on pneumatics or tracked

**EALING 4754**  
6 LINES

25-Ton Calson model 3010

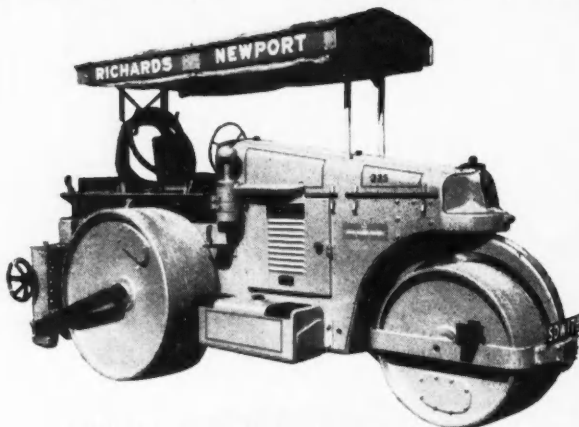
15-Ton HCK  
Lorry Mounted  
Crane

ARUP & ARUP LTD. BILTON HOUSE, 54/58 UXBRIDGE ROAD, EALING, LONDON, W.5

## RICHARDS-NEWPORT

PLANT HIRE

PLANT SALES



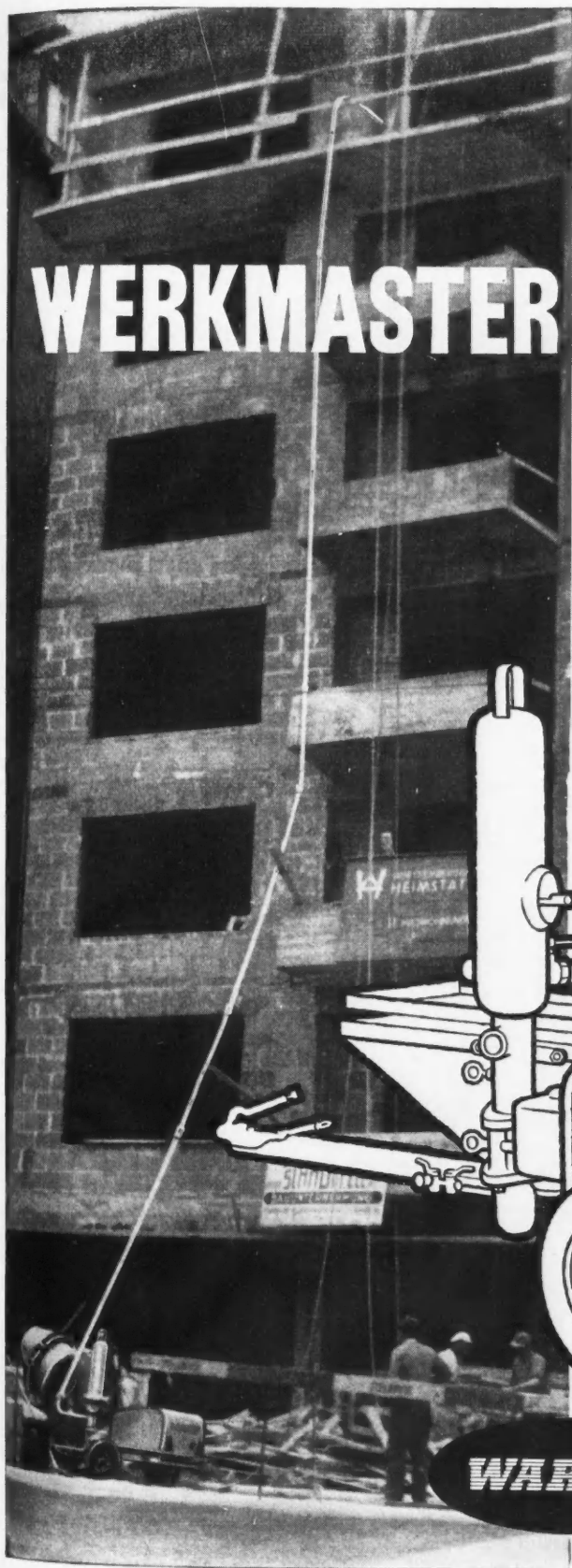
MODERN ROAD AND FOOTPATH ROLLERS  
35 cwt. to 12 tons

ROAD ROLLERS • VIBRATING ROLLERS • DUMPERS • COMPRESSORS  
DOTT SKID SHOVELS • EXCAVATORS • BULLDOZERS • LOADING  
SHOVELS AND TRENCHERS • CONCRETE MIXERS • PUMPS

**H. RICHARDS & CO. LTD**

Rodney Road, Newport, Mon.

PHONE: NEWPORT 59732



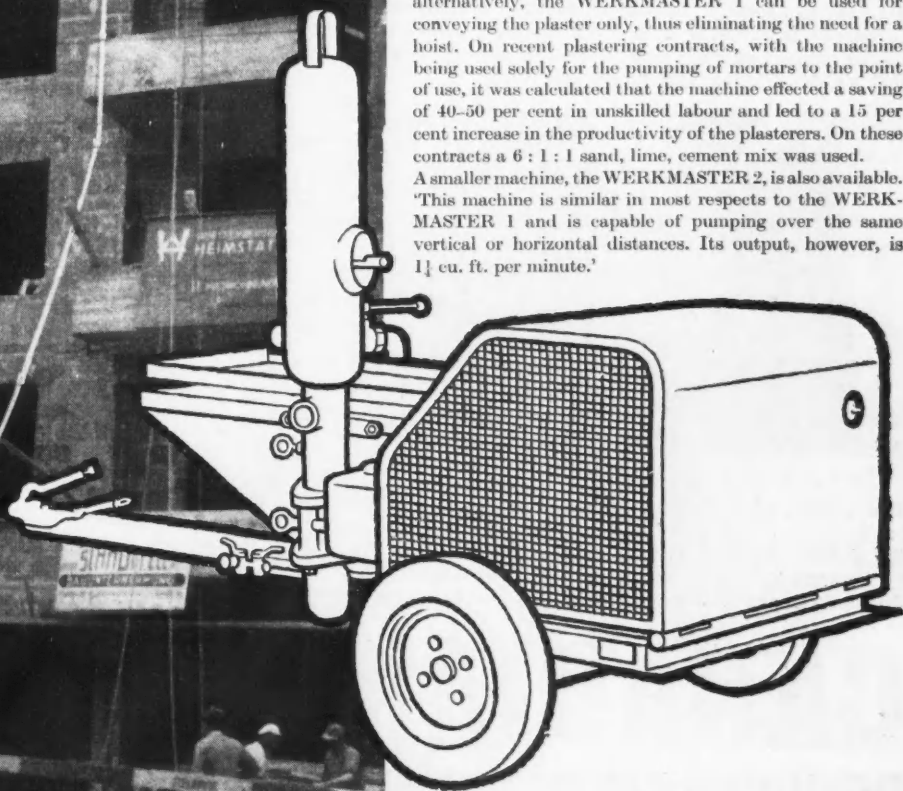
# WERKMASTER

## PLASTER CONVEYING AND SPRAYING MACHINES

The WERKMASTER 1 is capable of pumping  $2\frac{1}{2}$  cu. ft. of mortars per minute to a height of 90-150 ft. or over a horizontal distance of 300-600 ft.

A Spray attachment is supplied with the machine enabling the plaster to be sprayed direct on to walls or ceilings, or alternatively, the WERKMASTER 1 can be used for conveying the plaster only, thus eliminating the need for a hoist. On recent plastering contracts, with the machine being used solely for the pumping of mortars to the point of use, it was calculated that the machine effected a saving of 40-50 per cent in unskilled labour and led to a 15 per cent increase in the productivity of the plasterers. On these contracts a 6 : 1 : 1 sand, lime, cement mix was used.

A smaller machine, the WERKMASTER 2, is also available. 'This machine is similar in most respects to the WERKMASTER 1 and is capable of pumping over the same vertical or horizontal distances. Its output, however, is  $1\frac{1}{2}$  cu. ft. per minute.'



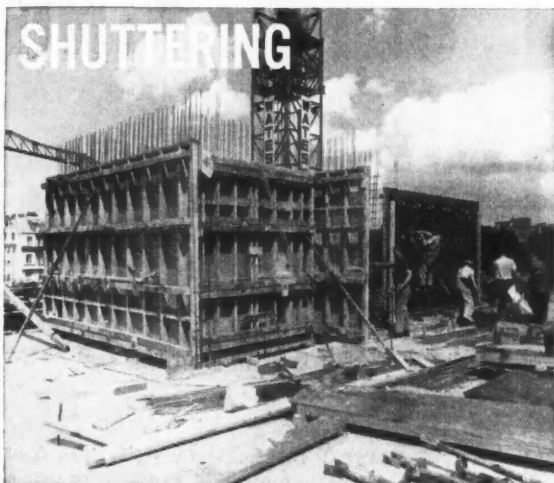
**WARSOP**

*For further details write:*

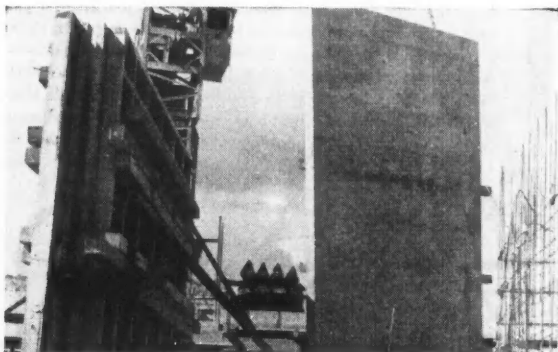
**WARSOP POWER TOOLS LTD.,**  
SALFORDS, REDHILL, SURREY.

Telephone: Horley 4471

## CANADIAN FIR PLYWOOD



Canadian Douglas Fir Plywood is rapidly gaining ground as the ideal shuttering material. It gives greater design freedom because the waterproof glue fir plywood panels are easy to handle. It cuts costs because it saves labour—reduces complicated joinery to a minimum. Fir Plywood can be reused again and again because it is rugged material that stands up to the toughest conditions.



### Technical data free

The Canadian Fir Plywood Technical Service is available to architects, engineers, and contractors anywhere in the United Kingdom. The technical handbook "Douglas Fir Plywood Concrete Form Work" and the "Industrial Fir Plywood Handbook" are available, free of charge.

## CANADIAN DOUGLAS FIR PLYWOOD

For technical data or advice in every aspect of the use of Fir Plywood write to  
PLYWOOD MANUFACTURERS ASSOCIATION  
OF BRITISH COLUMBIA  
4 Carmelite Street, London, E.C.4.



60-PA-3

## CANADIAN DOUGLAS FIR PLYWOOD

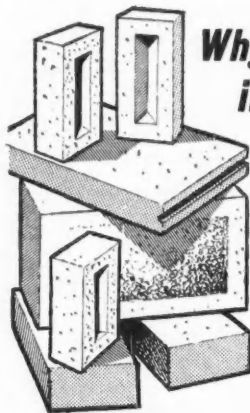
FOR FORMWORK AND ALL BUILDING  
CONSTRUCTION

As imported or lacquered and protected  
DISTRIBUTED THROUGHOUT  
South-East ENGLAND BY

## PARKER TIMBER CO LTD

South End, Croydon, Surrey. Telephone: CRO 9331  
AT DEPTFORD: TIDEWAY 6511  
AND READING: THEALE 306

MANUFACTURERS OF SCAFFOLD-BOARDS  
TRUSSES AND SHUTTER-PANELS.  
STOCKISTS OF TRENCHING SHUTTERING  
SHORING AND CARCASSING TIMBER



### Why 'mark time' in standing time?

Nothing upsets a builder's economy more than having to put men on unproductive chores in standing time. What a great opportunity to make your own concrete slabs and bricks for future jobs, and what a great little machine LINER make to do just that!

The **LINER**

### SLAB, BLOCK & BRICK MACHINE

Makes Plain Slabs, Grooved or Tongued and Grooved Slabs, Frogged or Plain Bricks, Rock Faced and other Building Blocks. Hand tamping unnecessary. Fast in operation. Needs only wood pallets. Write for Brochure.

H.P. TERMS . . ONLY 10% DEPOSIT

THE

**LINER**  
CONCRETE MACHINERY CO. LTD.

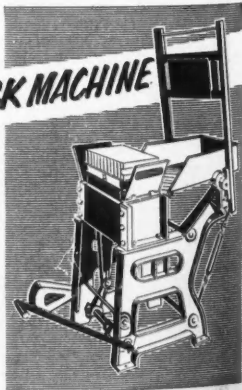
187, Park Road, GATESHEAD, 8.

Phone: 72501 (7 lines)

Grams: "Liner, Gateshead"

London Office: 2 Lexden Road, Acton, W. 3.

Telephone: ACOm 8911



Also at:

Birmingham, Manchester, Liverpool, Bristol, Leeds, Grantham,  
Torquay, Edinburgh, Glasgow, Dundee, Belfast, etc.







# SANPLANT

FOR YOUR **JCB 4**

- DEMONSTRATIONS WILLINGLY ARRANGED
- MACHINES FOR SALE AND FOR HIRE
- UNSURPASSED AFTER-SALES SERVICE
- MAY WE QUOTE YOU FOR YOUR PLANT REQUIREMENTS

**SANPLANT (DERBY) LTD.** WEST ROAD  
SPONDON  
DERBY

☎ DERBY 56315

Distributors for

DUMPERS, MIXERS, HOISTS, AIR COMPRESSORS, PUMPS and all Plant requirements.

\* After business hours the ANSAFONE SYSTEM will be pleased to take your messages—simply phone DERBY 56315

## PEEL'S Sectional Buildings quickest up! longest up!



- Easy to erect
- New timber throughout
- Extensive range of standard designs
- Individually designed if required
- Free delivery within 200 miles radius

Send for PEEL'S comprehensive catalogue and price list, or ask for representative to call.

### H. PEEL LTD.

(Dept. C.S.) Mearclough Works, Wakefield Road,  
Sowerby Bridge, Yorkshire. Telephone: Halifax 81211

*For easy handling;  
fine floors,  
and fine service.*

## Crockatt

### 10 INCH SANDER

Here's a machine that's really built to take the rough and make it smooth. It is bristling with features that make it the ideal choice for you. An efficient Dust Extractor is incorporated. The 10 in. Drum belt drive ensures that you never mark a floor. You can adjust the depth of cut easily and quickly. Supplied for Electric or Petrol Drive.

Write for full details



#### ALSO

Terrazzo Surfacing Machines, Valve Reseaters,  
Electric Salinometers, Feed Water Filters,  
Boiler Tube Brushes, Cheese Curd  
Agitators etc.

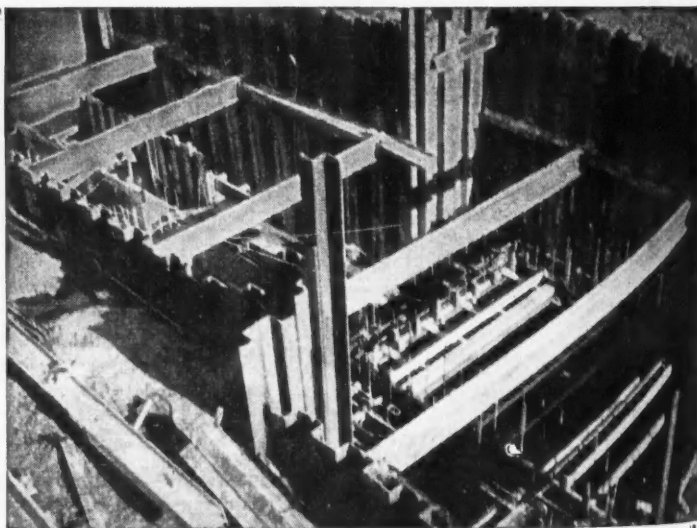
Write for our  
new illustrated  
Catalogue of  
Floor Surfacers

## W. CROCKATT & SONS LTD

DARNLEY STREET, GLASGOW, S.I.  
SCOTLAND.

## SUBLET YOUR STEEL SHEET PILING

TO



## W. A. DAWSON LTD.

SPECIALIST EQUIPMENT FOR  
ALL SIZES ON CONTRACT

SUNDON PARK, LUTON

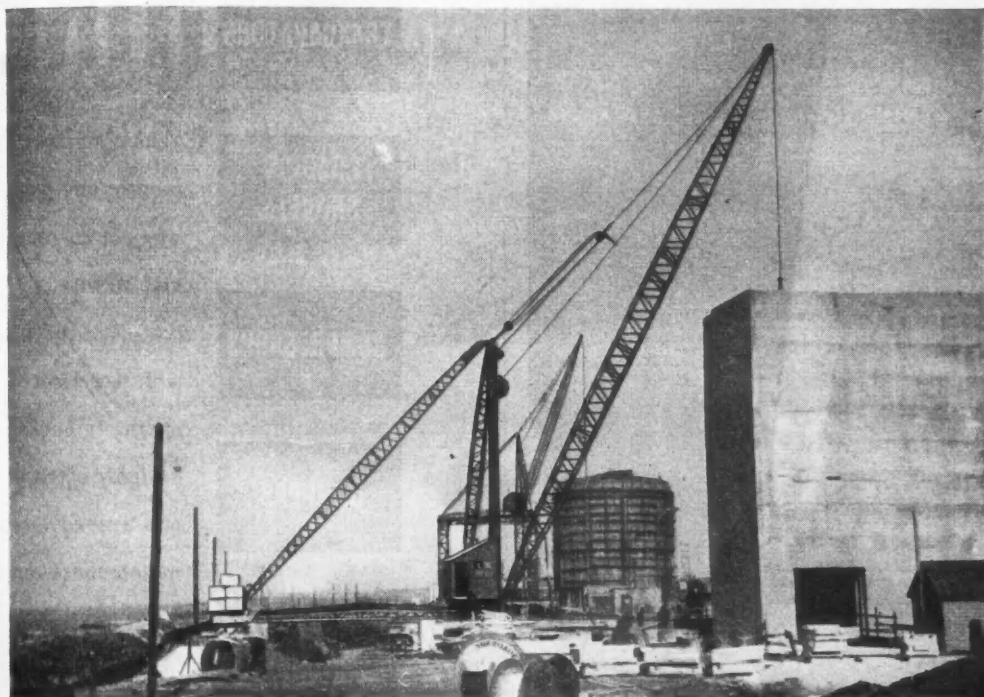
LUTON 52203

THE CONTRACTOR'S UNIVERSAL CHOICE

# ANDERSON

## DERRICK CRANES

*For Sale or Hire*



7-ton Electric Derrick Cranes working on construction of Scottish Hydro-Electric Scheme

**When may we arrange for a site demonstration for you to:—**

**OBSERVE** the driver's panoramic visibility, easy centralised control and comfort.

**EXAMINE** the unit assembly of the gearing which guarantees mechanical efficiency and reliability

**STUDY** the high performance and safety—and how a banksman is superfluous.

**Independent professional inspectors have been impressed—so will you!**

Hire Agents for England, Wales & Ireland:

CASWELL, CRANES & ERECTION LTD., GROVE WORKS, HAMMERSMITH, LONDON, W.6  
Tel: RIVerside 8922/5

and

156 CHARLES HENRY STREET, BIRMINGHAM, 12

Tel: Midland 7063

Sale-Hire Agents for Scotland:

THE ANDERSON-GRICE CO. LTD., TAYMOUTH ENGINEERING WORKS, CARNOUSTIE  
Tel: Carnoustie 2214/5 & 2110

\*Phone  
CARNOUSTIE  
2214/5 & 2110

\*Grams:  
"DIAMOND"  
CARNOUSTIE

# ANDERSON

THE ANDERSON-GRICE CO. LTD.  
TAYMOUTH ENGINEERING WORKS, CARNOUSTIE, SCOTLAND

London Office:  
FINSBURY PAVEMENT  
HOUSE, 120 MOORGATE,  
E.C.2

\*Phone: MONarch 4629



# BTR

## rubber boots are *tough!*



All BTR boots are designed to take punishment! They're tougher . . . last longer . . . wear harder—because they're *reinforced* at every vulnerable point. Whatever the conditions there's a BTR industrial rubber boot for the job. From the general purpose TRENT or TILLER to the ARMASOL or STEELEX with steel mid-soles and toe-caps, from the TRENCHER with its unique non-metallic digging plate to the CONTRACTOR (*illustrated here*) with its special coloured foot for easy identification. Write for full details *today!*

**BTR — specialists in rubber boots**



**BTR Industries Ltd**  
Footwear Division, Burton-on-Trent

3/2446

EXCAVATORS

TRACTORS

TRAXCAVATORS

LOADING  
SHOVELS

COMPRESSORS

DUMPERS

MIXERS

# PLANT HIRE

When you next  
require any plant  
why not contact us  
and be sure of  
first-class machines  
with experienced  
operators backed by  
a highly efficient  
and well-equipped  
maintenance service

Tel.  
**RODNEY**  
**2215**

**The hire service  
that never lets  
you down**

# COX

OF CAMBERWELL

**H. COX & SONS (PLANT HIRE) LTD.**

33 Southampton Way, Camberwell, London, S.E.5.

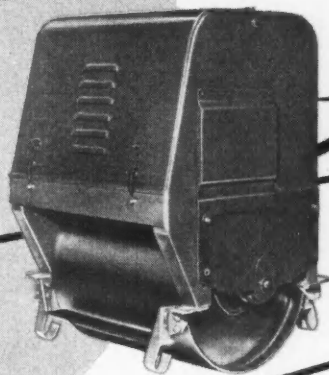
8 cwt roller gives 5-7 tons compaction effort!

the NEW **GREENS**

## **VIBRATING Roller**

Light, safe and economical to operate . . . the proved performance of the new **GREENS** roller puts it far ahead of any competitive machine. Exerting a pressure the equivalent of 12-17 times its own weight,\* the new vibrating roller gives equal compaction in less time and at lower fuel cost.

\*The equivalent of 5-7 tons, according to the nature of the material rolled, moisture content, etc.



And the **GREENS** Vibrating roller is *safe* because it has genuine finger-tip control and a "dead-man" handle.

**Additional features are:**  
easy starting by hand lever; 2-speed quick-reverse gear-box; complete accessibility for servicing and adjustment; robust construction and long life.



"Greens Griffin"  
Regd. Trade Mark

## **GREENS Griffin Rollers** (8 cwt to 13 tons)

Thomas Green & Son Ltd., P.O. Box 45, North St., Leeds 2. Phone: Leeds 20357 (6 lines). Telegrams: Smithfield, Leeds.  
New Surrey Works, Southwark Street, London S.E.1. Phone: WATerloo 4301. Telegrams: New Surrey Works, London.

# Submersible Breakthrough

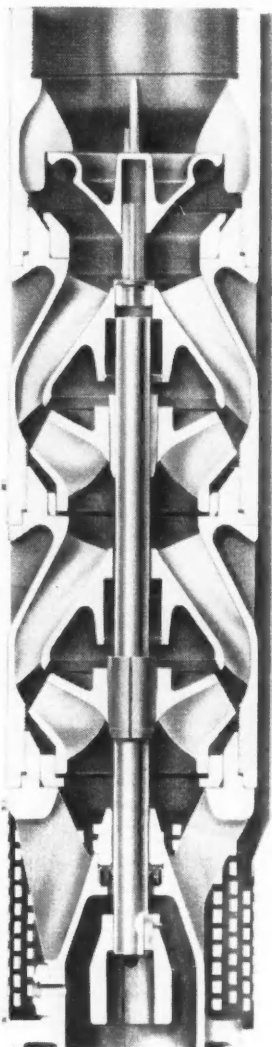
Sumo designers have effected a remarkable increase in the efficiency of standard production submersible pumps compared with anything attainable hitherto. Pumping losses have been reduced by as much as 20%.

Here are some of the results that follow from this breakthrough.

1. Lower current consumption.  
Hence lower pumping costs.
2. In some sizes the reduction of losses leads to a reduction in stages for a given head—and hence to a smaller and cheaper pump.
3. The most powerful motor that can be built within a given diameter will now pump more water against higher heads. Consequently there are ranges of duty where these new Sumos require smaller boreholes than other submersibles.

These new mixed flow pumps are being made for 6", 8" and 10" diameter boreholes.

Further details and pump curves are available from:



## SUMO PUMPS

SUMO PUMPS LTD • SCHOMBERG HOUSE • 82 PALL MALL • LONDON • SW1  
Telephone: TRAfalgar 1954



(A subsidiary of Stone-Chance Ltd., makers of Austinlite electrical specialities and Stone-Chance lighthouses.)

COMPREHENSIVE STOCKS OF

# STEEL

READY FOR IMMEDIATE DELIVERY



# SCRAP

DISPOSAL

**BIRMINGHAM**  
Scapa Works  
Langley Green  
Oldbury, Birmingham  
Tel: Broadwell 1611  
Telex 33183

**MANCHESTER**  
Frederick Road  
Pendleton  
Salford 6  
Tel: Pendleton 2481  
Telex 66448

**SHEFFIELD**  
Stevenson Road  
Attercliffe  
Sheffield, 9  
Tel: Sheffield 41216  
Telex 54205

**LONDON**  
Scapa House  
Park Royal Road  
London N.W.10  
Tel: Elgar 5811  
Telex 25239

And at Newcastle, Bedford, Cardiff, Bow, Coventry and Belfast.

A METAL INDUSTRIES GROUP COMPANY





## WALPAMUR PAINTS

### do a wonderful job

Beautiful colours . . . lasting perfection of finish . . . for inside and outside use . . . Walpamur Quality Paints do a wonderful job. Constant laboratory testing at every stage of manufacture ensures the consistently high quality on which is based the international reputation of these famous paints.

**DURADIO 5-YEAR ENAMEL PAINT** is unsurpassed for interior and exterior decoration.

**WALPAMUR WATER PAINT** is ideal for walls and ceilings: a special Exterior Quality is also available.

**DARWEN SATIN FINISH** for inside use only is attractive in any room and perfect for use in humid atmospheres.



For further details of these and other Walpamur products write to The Walpamur Co. Ltd., Darwen, Lancs.

**THE WALPAMUR CO. LTD • DARWEN & LONDON**  
Paints, Enamels and Varnishes for every possible need

# KEEP MOVING on Firestone



Firestone Nylon Earthmover tyres are built to keep construction jobs up to schedule. They have the extra traction and extra strength needed to speed up the work and reduce tyre costs. They cope with the toughest grading, construction or open cast mining operations.

Firestone Nylon tyres give the greatest protection against damage because nylon cords, being tough and resilient, have greater resistance to heat and flexing fatigue and are highly resistant to impact and bruise damage. Nylon does not absorb moisture, so that nylon tyres are

immune to damage from water penetration. Firestone Nylon Earthmover tread designs give maximum traction in the worst conditions and are extra tough to resist cutting; double-thick sidewalls give added protection against cuts and snags.

There is a complete range of Firestone Nylon Off-the-Highway tyres specially designed for the many different types of Earthmoving equipment. They give more hours of operating life, they cut down-time and they increase your profits.



**EXPERIENCE COUNTS**

45 Factories throughout the world. Firestone total sales exceed £1,000,000 per day.

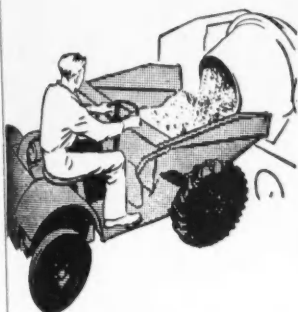
# Barford 75

## DUMPER

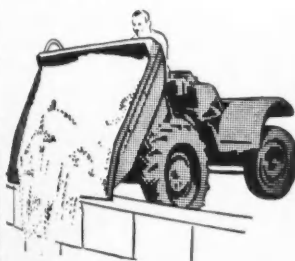
**SPEEDY  
COMPACT  
STURDY**



**BARFORD FEATURES  
ARE PRACTICAL  
FEATURES**



A special low-lip skip is available to take the full discharge from small mixers.



Quick action gravity tip ensures complete discharge of load.

*Write today for full details.*

### most productive in its class

From widely separated sites throughout the world come reports of the outstanding performance, strength and mobility of the Barford 75—Britain's leading one-ton dumper.

The design of this sturdy, compact machine is based on maximum utilization of power, plus exceptional manoeuvrability, reliability and minimum maintenance. This is a combination that cuts time, costs and operator fatigue too!

- *In line transmission—direct drive without belts or chains —minimum power losses greater efficiency and dependability.*
- *Ease of manoeuvrability ensures faster working cycle reduces operator fatigue.*
- *Heavy duty, constant mesh gear box—three forward speeds and reverse.*
- *Choice of engines—Petter PH, AVA, Ruston 1 YBA and Lister LD2.*

**BARFORDS** OF BELTON

GRANTHAM, LINCS.





# For the best 'all-round' performance

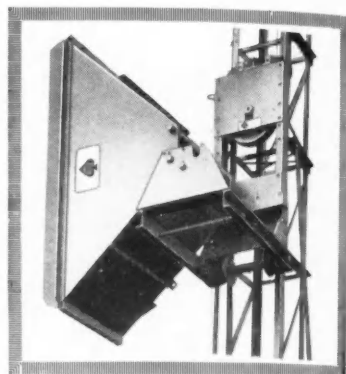


## COMET MOBILE HOIST

Robustly designed for many uses, including housing schemes and medium class building structures where speed of erection is essential. The "Comet" is a **SELF-CONTAINED UNIT** which **CAN BE ERECTED IN UNDER 2½ MINUTES BY ONLY ONE MAN**. Pull rope or hand lever guidance ensures fine degree of control. 11 ft. mast extensions give **ULTIMATE LANDING HEIGHT OF 100 FT.** 7 cu. ft. controlled-discharge self-tipping concrete skip. Diesel Petrol or electric power units.

### ACE SERVICE

"Service to the Customer", that's the key phrase of the A.C.E. Service Department, unrivalled for its courtesy, efficiency and speed.



Available with 7 cu. ft. Controlled Discharge Self-tipping Skip.

### OTHER MODELS IN THE POPULAR RANGE OF ACE CONSTRUCTION EQUIPMENT.

**ACE "SKYMASTER" MARK II MAN-CARRYING HOIST.** For multi-storey contracts. Speedy and safe conveyance from floor to floor of supervisory staff and workmen.

**ACE "LOADMASTER" CONCRETE ELEVATOR.** Materials elevated and concrete batches automatically placed and discharged to heights of up to 500 ft.

**ACE "HUMDINGER" CONCRETE VIBRATOR.** Ensures speedy compaction of harsh mixes and achieves highest degree of density.

**ACE "BOMAG" VIBRATING ROLLERS.** Alternating direct to ground vibrations ensure maximum compaction.

**ACE "DALLI" HANDSCRAPER.** Economical handling of granular materials. Speedy feeding of aggregates to concrete mixers, batchers, etc.

Write for full specifications of any of the A.C.E. range of Construction Equipment to:—



## A.C.E. MACHINERY LIMITED

PORDEN ROAD · BRIXTON · LONDON · S.W.2

Telephone: BRIXTON 3293 (9 lines) Telegrams: AUSCON: TELEX: LONDON

and at:— Harlequin Avenue, Brentford, Middlesex.

TRACK-MARSHALL, THE DADDY OF THEM ALL



MARSHALL SONS & COMPANY LIMITED • GAINSBOROUGH • LINCOLNSHIRE

# SIDE DISCH



*BUILT BY*

**Th**



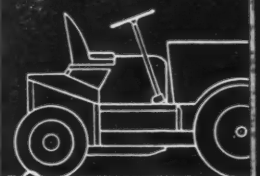
# LARGE dumper

**This completely new side discharge-dumper provides hydraulically operated finger tip controlled side discharge of concrete—1'-3" above ground level whilst travelling under load**

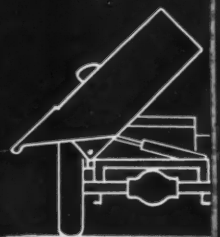
## SPECIFICATION

<b>Chassis.</b>	6" x 3" and 4" x 2" Channel, electrically welded giving ample strength and rigidity.
<b>Skip.</b>	3/16" thick sheet steel, electrically welded and braced where required. Capacity: 27 cu. ft. water level. Speed of lift: 7 seconds. Loading height: 4 ft. Maximum payload: 30 cwt.
<b>Turning Radius.</b>	9 ft. 6 ins.
<b>Engine.</b>	Petter AVA2. 11.5 h.p. @ 1650 r.p.m. working off half speed shaft. Chain drive to clutch, slow running "Renold" $\frac{3}{4}$ " pitch.
<b>Gearbox.</b>	Constant mesh, 3 forward, 1 reverse, gears hardened nickel chrome steel with a ground finish to ensure smoothness in running.
<b>Driving Axle.</b>	4 star differential with half shafts of 100 ton steel. 12" x 2½" brakes.
<b>Speeds:</b>	1st gear: 4 m.p.h. 2nd gear: 7½ m.p.h. top gear: 12½ m.p.h. reverse: 4 m.p.h.
<b>Pump.</b>	4½ g.p.m. @ 1,500 r.p.m. Chain drive.
<b>Control Valve.</b>	Manually operated with relief un-loader valve set at 1,500 p.s.i.
<b>Ram.</b>	23" stroke-2½" bore with nickel chrome ram, tested 2,500 p.s.i.
<b>Hoses.</b>	Adequate in strength with a single wire braid, tested 2,500 p.s.i.

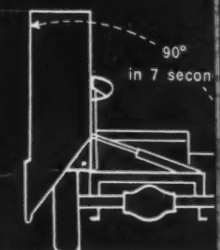
**£720 del.**



Low loading height of 48 in. with 27 cu. ft. water level skip ensures use on site with standard mixers.



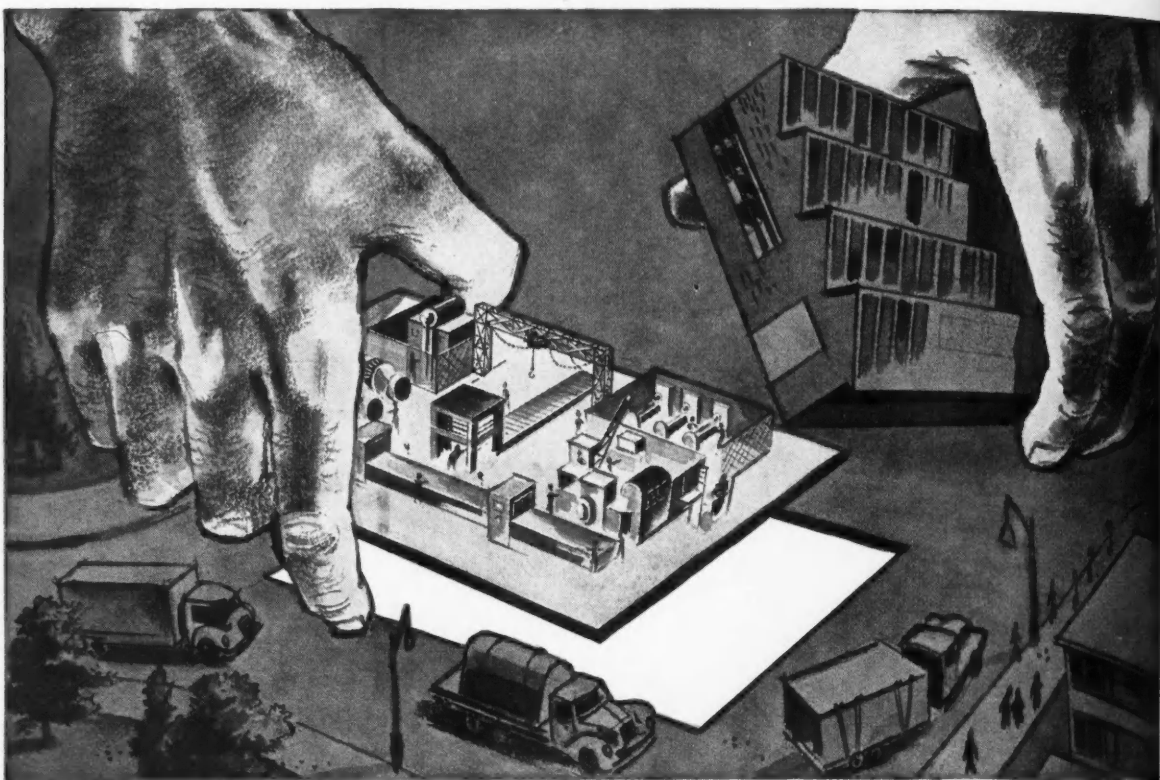
Positive hydraulic finger-tip control ensured by double-action ram driven from Dwyer hydraulic motor directly coupled to engine.



Discharge lip within view of driver at all times ensuring accurate placing of concrete whilst in motion complete tip of 90° obtainable if required within 7 seconds.

# thwaites

**THWAITES ENGINEERING CO. LTD.**  
CUBBINGTON • LEAMINGTON SP  
TEL: LEAMINGTON 3089



# TRANSPLANTING

MOVING a plant is a problem to many other people than gardeners. Transferring your plant and machinery to a new site calls for considerable thought and generalship if production is not to be held up unduly. This is a very good reason why you should consult us at an early stage. We can plan and undertake the complete operation ourselves, without sub-contracting. Dismantling, packing, moving and re-assembly are all done by our own expert teams.

## THE PLANT ENGINEERING ORGANISATION

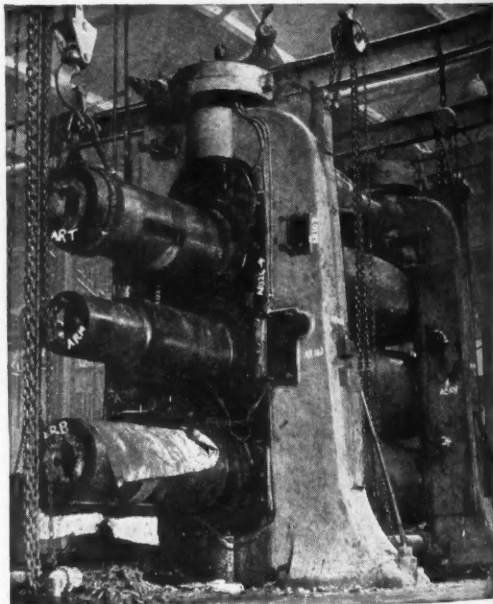
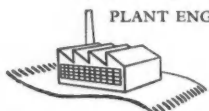
*Incorporating*

PLANT ENGINEERS (MECHANICAL & HANDLING) LTD.

PLANT ENGINEERS (INDUSTRIAL INSTALLATIONS) LTD.

PLANT ENGINEERS (HEATING & VENTILATING) LTD.

P.E.T. (CRANE HIRE) LTD.



*A tyre callender, dismantled and marked for packing.  
This plant was shipped abroad by us.*

### *The Contract Removal Specialists*

ENQUIRIES DEALT WITH IMMEDIATELY AT LONDON OFFICE (DEPT. 1), 6 PARKWAY, CAMDEN TOWN, N.W.1. PHONE: GUL 8388



# SN 30 TON DUMPER

Biggest and most powerful British-built off-highway earthmover, the Aveling-Barford 'SN' 30-Ton Dumper is unmatched in capacity, power and speed. It has a 400 B.H.P. Rolls-Royce turbo-charged engine and optional transmissions giving 6-forward and one reverse speeds—top 30 m.p.h., or Allison Torqmatic No. CLBT 5940, with four forward speed ranges and one reverse, top 33 m.p.h.

Its rugged body of high tensile steel is built

to withstand heavy pounding of impact loading from big excavators and to resist the abrasive action of rock, iron ore or overburden constantly grinding over the surface as the load is discharged.

The 'SN' is easy to handle. Steering is power-assisted; brakes are air-powered, and the tip hydraulically operated and fully controlled—can be held at any angle.

For full particulars write for Publication No. 1852.

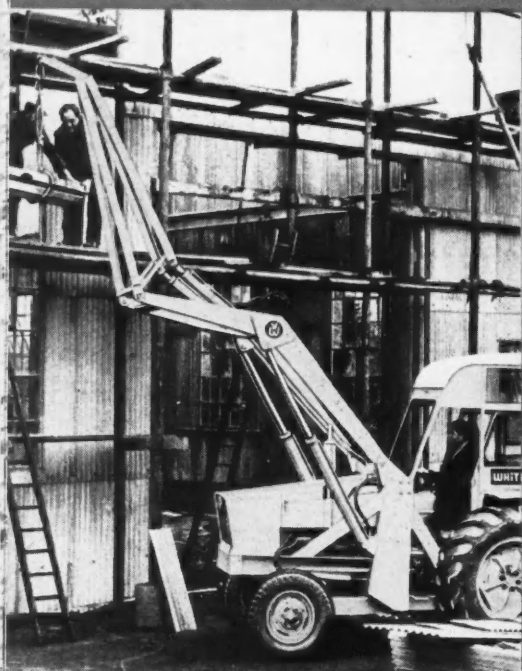


## Aveling-Barford SN 30 TON DUMPER

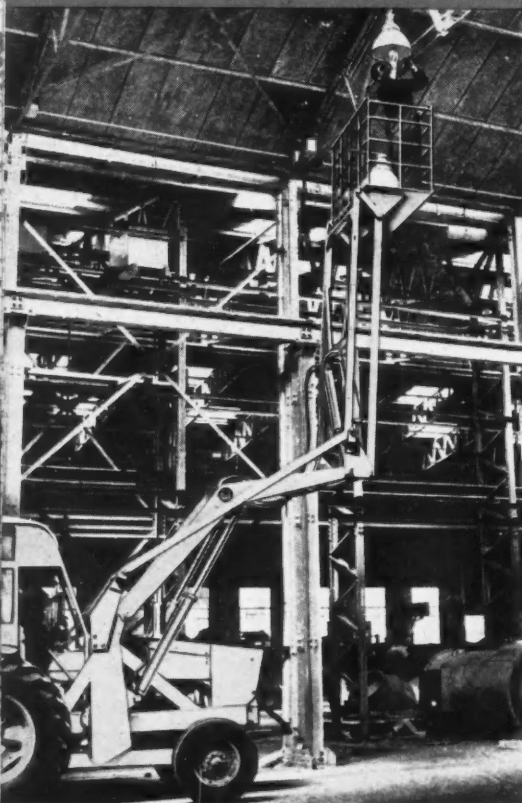
AVELING-BARFORD LIMITED · GRANTHAM · ENGLAND



# The **POWERFUL**



Crane attachments for lifting 1 ton to 13 feet and 15 cwt. to 17 feet.



A Maintenance Platform lifts loads of 5½ cwt. to 20 feet and can be operated from the cab or from the Platform.



A Roll attachment hydraulically steered can be fitted and this can be lifted by the shovel arms for moving from site to site.



A High Lift attachment can lift 12' 6" high and will load onto scaffolding, high hoppers or dump trucks.

**FOR FAST  
SITE STRIPPING  
AND LOADING**

- ★ **POWERFUL TWIN CROWD RAMS**
- ★ **DOUBLE ACTING TWIN LIFT RAMS**
- ★ **HEAVY PRESSED STEEL BOX CONSTRUCTION FRAME**
- ★ **EXCEPTIONAL OPERATOR VISIBILITY AND COMFORT**
- ★ **SEPARATE COOLED HYDRAULIC SYSTEM**
- ★ **5 FT. AND 6 FT. WIDE SHOVEL AND 6 FT. DOZER BLADE**
- ★ **HEAVY DUTY FRONT AXLE HUBS AND WHEELS**
- ★ **INTERCHANGEABLE "A" BLADE AND MANGANESE SHOVEL TEETH**



**WHITLOCK BROS. LIMITED GT. YELDHAM**

**WHITLOCK ALSO PROVIDES THE *ONLY* COMPLETE**

# WHITLOCK 66 SHOVEL



*has many  
attachments*



HAMPSHIRE Telephone Gt. Yeldham 305 (8 lines)

COMPLETE RANGE OF HYDRAULIC EXCAVATORS AND SHOVELS



## HERE'S AIR POWER FOR THE MEDIUM SIZED WORKSHOP

The Atlas Copco Compressor

# TT6



Developed from the famous VT portable compressors, the Atlas Copco TT6 is a compact, heavy-duty machine for round-the-clock operation where there is a moderate but continuous demand for compressed air.

The compressor is a single-acting, two-stage machine with air-cooled cylinders and intercooler. It is built for a normal working pressure of 100 p.s.i. and has a free air delivery of 141 c.f.m.

**NO FOUNDATIONS NEEDED.** The TT6 and its electric drive motor are foot-mounted on bonded rubber. This eliminates the need for foundations as the compressor can be placed directly onto concrete floors. The TT6 can also be moved from place to place as circumstances dictate.

Like the VT portables, the TT6 combines an outstanding power weight ratio with a basically simple design which ensures reliable service and easy maintenance. At £461 (as illustrated), the TT6 is a sound investment for medium-sized or small-but-growing companies.

### **AUTOMATIC CONTROL AVAILABLE TOO!**

Available as an optional extra, the Atlas Copco Air Regulator allows the TT6 to be run with standard valve unloading system or as a fully automatic stop-and-start unit.

### **WRITE FOR THE LEAFLET**

*Atlas Copco leaflet E 1207-1 gives full details of the TT6. It is freely available on request from the address below.*

## *Atlas Copco* COMPRESSED AIR ENGINEERS

ATLAS COPCO (GREAT BRITAIN) LIMITED Maylands Avenue, Hemel Hempstead, Herts. Tel: Boxmoor 6040

Sales and service depots at: LONDON · BRISTOL · CARDIFF · WALSALL · LEEDS · MANCHESTER · NEWCASTLE · GLASGOW · DUBLIN · BELFAST



Armstrong

SEE HOW  
IT  
RESILES...



... springs back, recovers ... Whatever your word, Armstrong B.C. Joint Material does it. Very little extrusion under pressure, high recovery characteristic, resistance to weather, petrol, oil, solvents, acids and alkalis—these are just some of the advantages of this Armstrong joint filler. The resilience of natural cork, resin-bonded and impregnated with bituminous material, gives this joint filler a recovery characteristic of up to 90%. It is light, easy to cut, and forms a bond with the concrete. Supplementary uses include screed underlayment and anti-vibration pads for machinery. Please write for full details.

**Armstrong B.C. JOINT MATERIAL**

ARMSTRONG CORK COMPANY LIMITED, INDUSTRIAL DIVISION, KINGSBURY, LONDON, N.W.9. COLindale 7080  
ABC.2

**HIRE**  
the  
fast  
and  
versatile

**MICHIGAN 55A**  
FROM

## PROWTING

*For hire anywhere write or phone*

*NOW:—*

PROWTING PLANT HIRE LTD.,  
Bury Street, Ruislip, Middlesex.  
Ruislip 4821.



- ★ Four Wheel Drive.
- ★ 1 Cubic Yard Heavy Duty Bucket.
- ★ 7,000 lbs. Lifting Capacity.
- ★ 27 m.p.h. Travel Speed.

*Versatile "Michigan" highly mobile tractor shovels—for a speedy job plus high capacity.*

## PLANT HIRE

**Serving CONTRACTORS and  
MUNICIPAL AUTHORITIES**

**Available For Long or Short Term Hire**

**Cranes:** Coles 5 ton and 22RB

**Rollers:** 2½ ton and 5 ton  
Bromag Vibrating Roller

**Bulldozers:** Bristol 25, D4 with Scraper

**Digger:** Dinkum Major Digger

**Loaders:** Muir-Hill 2WL Loader with 1 cu. yd.  
Bucket

**Compressor:** Consolidated 120 with 2 Tools,  
"500" with 6 Tools

**Pile Driver:** Delmag D5

**Road Surfer:** Barber-Greene

**Pumps:** 4" x 6"

**Pneumatic Concrete Placer**

# B. E. CONLIN

91a MARTON ROAD, BRIDLINGTON, YORKSHIRE

IN THE

## NORTH-EAST

Phone: BRIDLINGTON 2331





*Euclid Scraper operated by George Sheppard of Hatfield on his section of the M.1.*

For efficiency and sheer guts, Goodyear Earthmovers are unequalled. Built tough to take it rough, they stand up to brutal punishment... eliminate the excessive maintenance, downtime and replacement costs that eat into your profits. Long on mileage, long on life, they save you money, *make* you money, every yard of the job.

**Exclusive 3-T Nylon Cord Carcass** beats heat-shock-fatigue, biggest enemies of tyre life.

**Tubeless Construction** banishes tube and flap trouble — speeds mounting and dismounting — protects against blowouts, heat, bruising and tread-cracking.

**Wide-Base Tread** gives more traction, flotation and stability — distributes weight more evenly — reduces bruises and cutting.

**Job-Designed Treads** move more yards per hour, get more hours of work.

# GOOD YEAR

THE TOUGHEST TYRES FOR THE TOUGHEST JOBS





**SURVEYS • CLEARANCE • WELDING  
CUTTING • CONSTRUCTION  
MAINTENANCE**

Teams of expert diver engineers with specialised equipment are on hand to operate anywhere in the United Kingdom . . . or the world. Write for full details, or put your problems direct.  
Diving Equipment, Welding Generators.  
Compressors and other plant for HIRE.

**UNDER WATER WELDERS  
& REPAIRERS LTD.**  
ROATH BASIN • CARDIFF

Telephone: 29631-2-3 (After Hours: Gobion (Mon) 200 or Penarth 58131)  
Scottish Office: 3 Royal Street, Gourock, Renfrewshire  
Telephone: Gourock 31635

## PLANET PLANT HIRE



*Peter Planet* says . . . *We Offer*  
*Only the Best 1960 Plant*  
*To Hire . . .*



*Ring Me at . . .* **BRISTOL**  
**294222**

Victoria House, Temple Gate, Bristol, 1



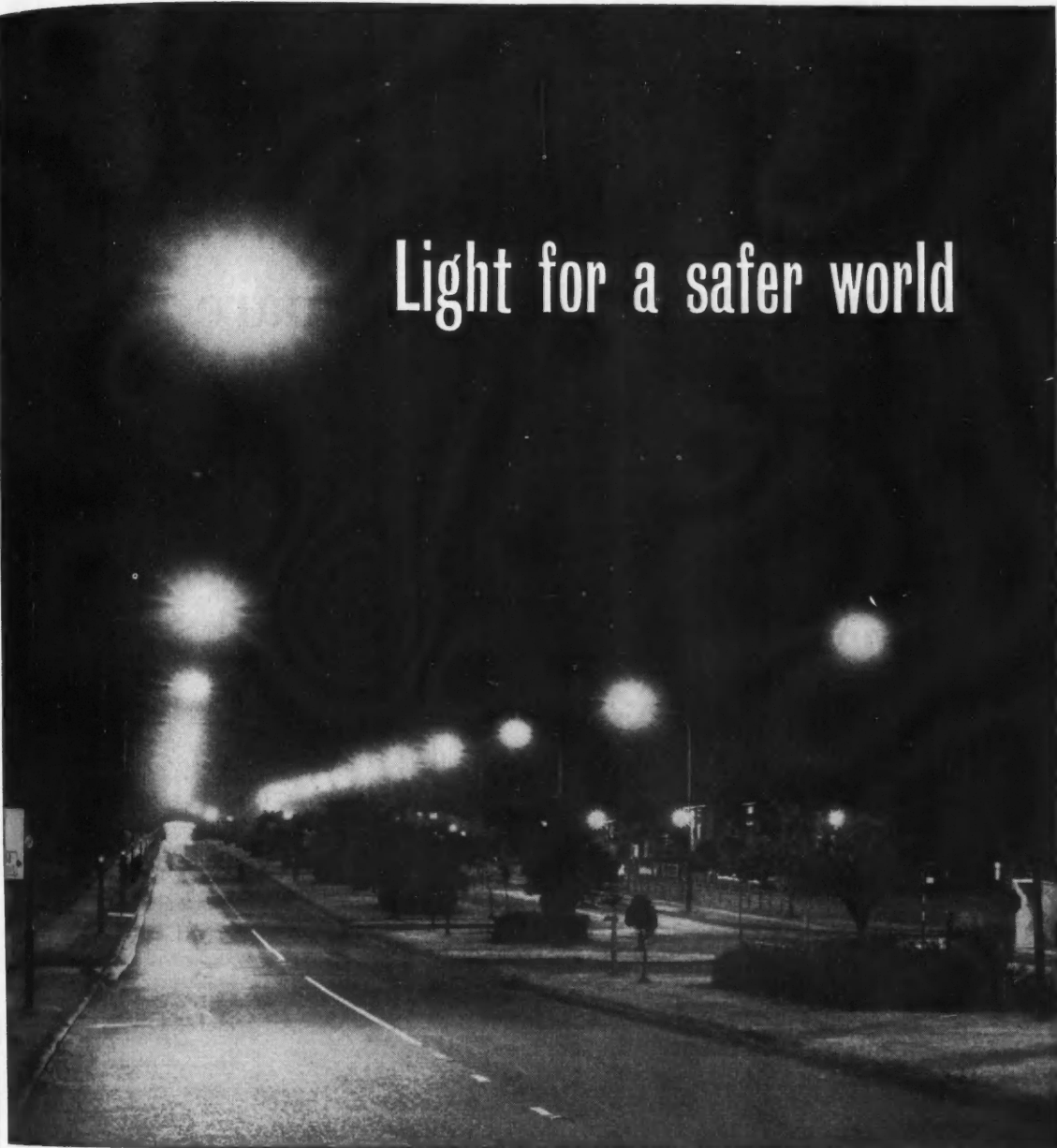
## THE FOUNDATION OF SUCCESS

The modern piling techniques and systems of Simplex are backed by over half a century of experience. Schemes and quotations for piling or reinforced concrete foundations will be gladly supplied, without obligation, on request.



Palace Chambers, Bridge Street, Westminster  
London, S.W.1 Telephone: TRAfalgar 1167-9

## Light for a safer world



With road safety a major consideration, this  $\frac{3}{4}$ -mile stretch on the main Glasgow-Edinburgh road is now lit by 52 high-wattage Sodium lamps developed by Philips Electrical Ltd. The new system was largely the inspiration of Mr. Denis Colvin, City Lighting Engineer to the Glasgow Corporation, who co-ordinated the activities of Philips on lamps and gear, the Engineering & Lighting Equipment Co. Ltd. in their development of the new ELECO Golden Ray '280', and of Messrs. Stewarts and Lloyds, who provided the special steel columns. In operation, it is no longer possible for confusion of light sources to be an accident hazard, and the reduction of the number of columns used reduces the number of possible collision points.

**PHILIPS ELECTRICAL LTD** • Lamp & Lighting Group  
Century House • Shaftesbury Avenue • London • W.C.2



## **DOORS FOR PAINTING ?**

*The Answer is the*  
**"SILKSTONE"  
 DOOR**

***the biggest ever  
 step forward in  
 FLUSH DOOR treatment***

*Why you should specify*  
**"SILKSTONE"**

Excellence of paintwork is sought after by all concerned in building. Architects, Contractors, Local Authorities, are all anxious to improve painted surfaces to do justice to the attractive range of paints now available. To this end the Gliksten "SILKSTONE" door will make a valuable contribution.

### **THE "SILKSTONE" FLUSH DOOR**

- Is surface filled.
- Has an excellent priming coat in off-white—a perfect base for painting.
- Has sealed faces preventing the absorption of moisture on site.

"SILKSTONE" processed doors are so good and so safe that we earnestly recommend you to use them in place of untreated hardboard doors. Send now for further details.

## **GLIKSTEN DOORS LTD.**

Carpenters Road, London, E.15. Telephone : AMHerst 3300  
 87 Lord Street, Liverpool, 2. Telephone : Central 3441  
 112 Londesborough Street, Hull. Telephone : Central 28716

**How to  
 stop rust for  
 less than a penny  
 a square yard!**



*Any metal that is exposed to wear and weather—roofs, railings, fire escapes, fences—is effectively and economically protected against rust by Presomet.*

### **A high-grade bituminous paint that preserves and protects metal surfaces—Presomet**

ALL OUTSIDE SURFACES need protection against weather. You can stop metal surfaces from rusting, wood or felt surfaces from deteriorating, simply by applying Presomet, a high-grade bituminous paint that is manufactured by the National Coal Board and covers for only 1d. per square yard.

Presomet forms a glossy, durable surface that lasts and lasts, even under the worst weather conditions and rough treatment. Yet Presomet is very easily applied by brush, spray, or by dipping, and flows exceptionally smoothly.

## **Presomet**

Supplied in three grades from your dealer or direct from the

**National Coal Board**  
 BY PRODUCTS, DOCKS, CARDIFF

*"Presomet" is a Registered Trade Mark*



# GET THE TUNNY, FRED!



Tunny is the new 2-ton mobile crane designed for—

- \* **SUPER-MOBILITY** . . really safe, fast travel on roads and superb cross-country performance
- \* **SLEWING** through an arc of 300 degrees
- \* **LESS CAPITAL OUTLAY** . . will do many jobs for which a much larger crane is at present used
- \* **LOW-COST MAINTENANCE** . . simple design, maintenance cut to a minimum
- \* **SNAG-PROOF OPERATION** . . only 3 controls for easy, accurate working in confined areas

There are a thousand-and-one jobs the brilliant new Tunny will do for you! For full details write to: **TUNNY CRANES LTD., ABBEY HOUSE, 2 VICTORIA STREET, LONDON S.W.1.**, or ask your nearest Tunny distributor for a demonstration: **Blashford Motors (Ringwood) Ltd., HAMPSHIRE.** Tel: Ringwood 602 . **R. Cripps & Company Ltd., NOTTINGHAM.** Tel: Nottingham 71161 . **R. Cripps & Company Ltd., Salford, 5, LANCASHIRE.** Tel: Trafford Park 1658 . **C. E. M. Day, Ltd., SWANSEA.** Tel: Swansea 22438 . **Ernest Doe & Sons Ltd., Maldon, ESSEX.** Tel: Hatfield Peverel 311 . **Fewsters Ltd., Blaydon, Co. DURHAM.** Tel: Blaydon 342 . **Morton's Garage Ltd., Coventry, WARWICKSHIRE.** Tel: Coventry 53351.

**WHITLOCK**

**DINKUM DIGGER**

**MAJOR**


**ESSEX**

**DISTRIBUTORS**

**SYMES**

(PLANT SALES) LTD  
BRENTWOOD · ESSEX

Telephone BRENTWOOD 2116 (5 lines)

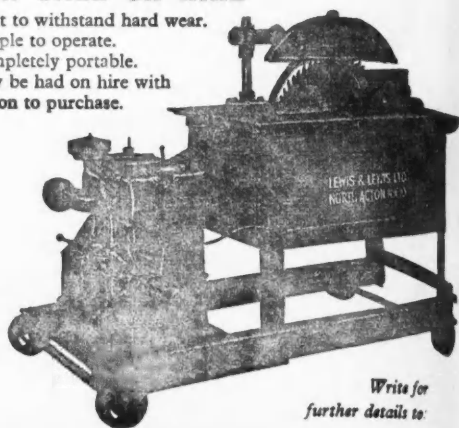


## Portable Saw Benches

Petrol, Diesel, or Electrical 22", 24", 30" & 33"

### FOR SALE OR HIRE

Built to withstand hard wear.  
Simple to operate.  
Completely portable.  
May be had on hire with  
option to purchase.



Write for  
further details to:

**LEWIS & LEWIS LTD**

SCHOOL RD., NORTH ACTON, LONDON, N.W.10

OR TELEPHONE:

**ELGAR 6757 (4 LINES)**

# THE BRITISH GENERAL FOR CONTRACT GUARANTEE BONDS

Write for Information—

**THE BRITISH GENERAL INSURANCE COMPANY LIMITED**

Head Office: 36-44 MOORGATE, LONDON, E.C.2

Telephone: MONARCH 3010

# CONTRACTORS' GUIDE TO AGGREGATES

## BEDFORDSHIRE

**BARON HILL QUARRIES (ELLIS AND EVERARD)**, LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)  
**DANGERFIELD, F. J., & CO., LTD.**, 261A Finchley Rd., London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)  
**FERRIS AND SONS, LTD.**, Northampton. (Tel.: 4587/8/9.) Largest producers of all grades of washed aggregates in Bedfordshire and Northamptonshire. Regular deliveries anywhere.  
**HUNFIELD, HENRY, LTD.**, Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamstead 1208/9.) Pits at Leighton Buzzard. Bedford. Building sands.  
**HARTIGAN, G. F. X., LTD.** (See Buckinghamshire.)  
**ST. IVES SAND AND GRAVEL CO., LTD.**, 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3.) (See Huntingdonshire for details.)  
**WEBB, G., CAMBRIDGE**, 35 Magrath Ave., Cambridge. (Tel.: 59966, 59969, 59969, 50353 (night).) (See Cambs.)  
**WELFORD GRAVELS, LTD.**, Head Office: Goldington, Bedford. (Tel.: 4587/8/9.)  
**WILKINSON, LTD.**, 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) (See Huntingdonshire for details.)

## BUCKSHIRE

**AMEY'S AGGREGATES, LTD.**, Lower Wootton, Boars Hill, Oxford. (Tel.: Oxford 35421—10 lines.) Pits at Dry Sandford, near Abingdon, Sutton Courtenay, near Abingdon. (Tel.: Sutton Courtenay 275.) Theale, near Reading. (Tel.: Theale 358.) Dorchester, Northampton. (Tel.: Cogenhoe 464) for washed and graded aggregates to B.S.S.  
**BARON HILL QUARRIES (ELLIS AND EVERARD)**, LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)  
**BULL BROS. & SONS, LTD.**, 126A High Street, Winchester. (Tel.: 264.) (See Hampshire.)  
**COPE, HARRY A., LTD.**, Buckhurst Hill, Chesham, Bucks. (Tel.: Ascot 1026/7.) Sand, all grades of washed aggregates, hardcore, clinker, slag and hoggins.  
**CURTIS, J. AND SONS, LTD.**, Botley Works, Oxford. (Tel.: Oxford 41081/2/3.) Sand and all grades of washed aggregates. Pits at Radley, near Abingdon. (Tel.: Abingdon 441.)  
**DANGERFIELD, F. J., & CO., LTD.**, 261A Finchley Rd., London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)  
**GRUNDON, S. (EWE) LTD.**, Ewelme, Oxon. (Tel.: Ewelme 20.) London Office (Tel.: Uxbridge 4150.) All grades washed aggregates. Path hoggins, broken stone, building sand.  
**HANES, H. (WITNEY), LTD.**, Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone. Cotswold building and walling stone.  
**JAMES AND CO., LTD.**, 2C Buckingham Avenue, Slough. Sand aggregates, ash, ash, bulldozing and bulk excavation. (Tel.: Slough 20361/2/3.)  
**LONDON BALLAST CO., LTD.**, (Tel.: Paddington 5064.) 55A Forchester Terrace, North, Paddington, W.2. (Tel.: Lechlade 219.)  
**MAHON OF BASINGSTOKE, LTD.**, 37 Kemshott Lane, Basingstoke, Hants. (Tel.: 358.) Concrete aggregates, building sand, path gravel, hoggins, etc.  
**MATTHEWS SAND AND GRAVEL CO., LTD.**, Station Road, Theale, Reading. (Tel.: Theale 373.)

## BRECKNOCKSHIRE

**NASH ROCKS STONE AND LIME CO., LTD.**, Prestelgne, Radnor. (Tel.: Prestelgne 352.) (See Herefordshire for details.)  
**SALOP SAND AND GRAVEL SUPPLY CO.**, Admaston, Wellington. (Tel.: 961.) Salop.

## BUCKINGHAMSHIRE

**AMEY'S AGGREGATES, LTD.**, Lower Wootton, Boars Hill, Oxford. (Tel.: Oxford 35421—10 lines.) Pits at Dry Sandford, near Abingdon, Sutton Courtenay, near Abingdon. (Tel.: Sutton Courtenay 275.) Theale, near Reading. (Tel.: Theale 358.) Dorchester, Northampton. (Tel.: Cogenhoe 464) for washed and graded aggregates to B.S.S.  
**ARNALL CARPETS, LTD.**, 38 Buckingham Palace Road, London, S.W.1. (Tel.: Tate Gallery 4857 or Gerrards Cross 3496.) Manufacturers of all grades of gravel bitumen macadam, gravel asphalt and hot asphalt at Gerrards Cross.  
**BARON HILL QUARRIES (ELLIS AND EVERARD)**, LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)  
**BICKETER, OXON.** (Tel.: Stratton Audley 238.) Manufacturers and suppliers of all grades limestone, macadam, dry, pitching stone, hardcore, etc.  
**COPE, HARRY A., LTD.**, Buckhurst Hill, Chesham, Bucks. (Tel.: Ascot 1026/7.) (See Berkshire.)  
**DANGERFIELD, F. J., & CO., LTD.**, 261A Finchley Rd., London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)  
**DRINKWATER, W. W. (WILLEDEN), LTD.**, Rush Green, Denham, Bucks. (Tel.: Denham 2241/2/3.)  
**GRUNDON, S. (EWE) LTD.**, Ewelme, Oxon. (Tel.: Ewelme 20.) London Office (Tel.: Uxbridge 4150.) All grades washed aggregates. Path hoggins, broken stone, building sand.  
**HANES, H. (WITNEY), LTD.**, Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone. Cotswold building and walling stone.  
**HALL AND CO., LTD.**, Brentford, Middlesex. (Tel.: Uxbridge 4855.) Pits at Coronation Road, High Wycombe. (Tel.: 4360/1) and at Gerrards Cross. Pits at Wraybury (Middx.) and Ivor (Bucks.).  
**HARTIGAN, G. F. X., LTD.**, High Street, Newport Pagnell. (Tel.: 126.) Graded and single-sized gravel aggregates to B.S.S. Pits at Newport Pagnell and Broughton, adjoining M.A. by-pass.  
**JAMES AND CO., LTD.**, 2C Buckingham Avenue, Slough. Sand aggregates, ash, ash, bulldozing and bulk excavation. (Tel.: Slough 20361/2/3.)  
**LONDON BALLAST CO., LTD.**, (Tel.: Paddington 5064.) 55A Forchester Terrace North, Paddington, W.2.  
**MARLOW SAND AND GRAVEL CO., LTD.**, Watlington Pit, Little Marlow, Bucks. (Tel.: Watlington 378.)  
**STANT MACEY, LTD.**, Gordon Road, High Wycombe. (Tel.: High Wycombe 2591/2.)  
**WELFORD GRAVELS, LTD.**, Head Office: Goldington, Bedford. (Tel.: 4587/8/9.) (See Bedfordshire.)

## CAMBRIDGESHIRE

**BARON HILL QUARRIES (ELLIS AND EVERARD)**, LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)  
**DANGERFIELD, F. J., & CO., LTD.**, 261A Finchley Rd., London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)  
**DICKERSON, M. (CONTRACTORS), LTD.**, Gloucester Street, Cambridge. (Tel.: Cambridge 56973/4.) All grades washed sand and gravel, reject stone, hoggins, clinker, crushed granite, crushed and graded concrete hardcore, brick rubble, ready-mixed concrete (all grades).  
**MACLAREN BROS. (KENNETT), LTD.**, gravel, tarred and bituminous, gravel asphalt, washed sand and gravel, all to B.S. Specifications. Delivered to any site. Station Rd., Kennett, Cambs. (Tel.: Kennett 333/4.)  
**ST. IVES SAND AND GRAVEL CO., LTD.**, 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) (See Huntingdonshire for details.)  
**WEBB, G., CAMBRIDGE**, 35 Magrath Ave., Cambridge. (Tel.: Cambridge 59966, 59969, 50353 (night).) Supplier, at keenest rates, of "Finest Quality Only" all grades washed sand and gravel, reject stone, hoggins, clinker, ash, brick rubble, pitching, hardcore and granite chippings. All to B.S. Specifications. Delivered to any site in East Anglia.  
**WELFORD GRAVELS, LTD.**, Head Office: Goldington, Bedford. (Tel.: 4587/8/9.) (See Bedfordshire.)

## CARDIGANSHIRE

**NASH ROCKS STONE AND LIME CO., LTD.**, Prestelgne, Radnor. (Tel.: Prestelgne 352.) (See Herefordshire for details.)  
**SALOP SAND AND GRAVEL SUPPLY CO.**, Admaston, Wellington. (Tel.: 961.) Salop.

## CHESTER

**BUCKTON QUARRY**, broken stone, all grades. (Tel.: Mossley 123.) Or write Main Road, Oldham.  
**CASTLETON SAND AND GRAVEL QUARRIES, LTD.**, Pennant End Quarry, Whaley Bridge. (Tel.: Whaley Bridge 139.) Washed sand and gravel.  
**CAWDO, WHARTON AND CO., LTD.**, Pistyll Quarry, Llanarmon-yn-Iâl, Denbigh. (Tel.: Llanarmon-yn-Iâl 27.) Crushed limestone and tarred macadam, all grades.  
**CHESTER AND NORTH WALES TARRED MACADAM CO., LTD.**, Llanarmon, near Mold. (Tel.: Llanarmon-yn-Iâl 43.) Hard, broken limestone, dry and coated, to B.S. Inquiries to registered office—Market Chambers, Tower Square, Tunstall, Stoke-on-Trent. (Tel.: Stoke-on-Trent 88094.)  
**CRODGEN GRAVEL, LTD.**, Cheddle, Stoke-on-Trent. (Tel.: Trent 393.) Manchester Office: Blackfriars 3765/7. Plant capacity, 2,000 tons per day.  
**DUNNING AND SON, LTD.** (See Shropshire.)  
**HILTON GRAVEL, LTD.**, Rice Street, Liverpool Road, Manchester, 3. (Tel.: Beansgate 5455 and 5456.) Quarries at head of Staiths. (Tel.: Team 241.) And at Longton, Stoke-on-Trent. (Tel.: Longton 32196.)  
**HULLAND GRAVEL CO., LTD.**, Cheddle, Stoke-on-Trent. (Tel.: Cheddle 219.) Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)  
**PENMAENMAWR AND WELSH GRANITE CO., LTD.**, 7 Picton Road, Liverpool, 15. (Tel.: Sefton Park 7261.) All sizes and gradings of crushed granite aggregate from our Collingwood Dock (Liverpool) Depot. Any quantity per day: immediate delivery ex stock.  
**TERN HILL SAND AND GRAVEL CO., LTD.**, Alington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffordshire for details.)  
**TRENTMAN GRAVEL CO., LTD.**, Lonsdale Quarries, Willoughbridge, near Co. LTD., Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plant capacity: 2,000 tons per day.  
**WARDLOW LIMESTONE, LTD.**, Caudon Low, N. Staffs. (Tel.: Oakmoor 366.) (For details, see Staffs.)  
**WILLIAMS, C. F., LTD.**, Blunston Street Quarry, Turncroft Lane, Stockport. (Tel.: Stockport 7096.) Building sand and concrete sand. Bulk sand and gravel filling a speciality.

## CORNWALL

**PENTEWAN DOCK AND CONCRETE CO., LTD.**, Pentewan Works, near St. Austell. (Tel.: Menapaisey 3335/6.) Gwithian Works, near Hayle. Pure silica gravel and grit, concreting, building, plastering and asphalt sands, elvan and granite aggregates, all sizes.

## CUMBERLAND

**BROOMBYS, LTD.**, Sandside, Milnthorpe (Tel.: 3251/2), Westmorland. (See Westmorland.)  
**ESK MANUFACTURING CO., LTD.**, Dalston, Carlisle, Cumberland. (Tel.: Carlisle 2-4941.) All grades washed, crushed gravel and concreting sand to B.S. Specification. Precast concrete products and partition blocks. Sand lime coloured facing and common bricks. Ex works or delivered.

## DENBIGHSHIRE

**SALOP SAND AND GRAVEL SUPPLY CO.**, Admaston, Wellington. (Tel.: 961.) Salop.

## DERBYSHIRE

**BALLIDON QUARRIES, LTD.**, Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. for concrete and wet mix: large output; reliable deliveries.  
**HILTON GRAVEL, LTD.**, Hilton, Derby. (Tel.: Etwell 422.) Also at Mercaston. (Tel.: Brailsford 316.) And at Willington. (Tel.: Repton 3215.)  
**HOVERINGHAM GRAVEL CO.**, Hoveringham, Nottingham. (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)  
**HULLAND GRAVEL CO., LTD.**, Cheddle, Stoke-on-Trent. (Tel.: Cheddle 2232/4, 2119 and 2195.) Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)

## DERBYSHIRE

**KEVIN LIME CO., LTD.**, Oakmoor, Staffs. (Tel.: Oakmoor 385-386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.  
**SALISBURY AND WOOD, LTD.**, Mattock (Tel.: 272/273.) Limestone and granite, dry or coated gravel and sand; kerbs, slabs, blocks, posts, reconstructed and natural stone; lime and ground limestone. Lightweight aggregates, ashes, red shale.  
**WARDLOW LIMESTONE, LTD.**, Caudon Low, N. Staffs. (Tel.: Oakmoor 366.) (For details, see Staffs.)

## DORSET

**BULL BROS., S. AND L., LTD.**, 126A High Street, Winchester. (Tel.: 264.) (See Hampshire.)  
**DANGERFIELD, F. J., & CO., LTD.**, 261A Finchley Rd., London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)  
**DORSET LIMESTONES, LTD.**, Bummer Lane, Easton, Portland, Dorset. (Tel.: Portland 2207/8.) Tarred and bituminous macadam, foundation materials, limestone for all purposes and to all gradings. Portland stone aggregates and Portland caststone aggregates for reconstructed stone. By road and sea.  
**GILSON, S. C. AND SONS, LTD.**, Holcombe, near Bath. (Tel.: Stratton-on-Avon 243.)  
**HALL AND CO., LTD.**, 8 Commercial Road, Parkington. (Tel.: 5379.)  
**MOREYS (VERWOOD), LTD.**, Verwood, Wimborne Dorset. (Tel.: Verwood 234.) Gravel aggregates, building sand, hoggins, path gravel.

## ESSEX

**ALRESFORD SAND AND BALLAST CO., LTD.**, Alresford Creek, near Colchester, Essex. (Tel.: Wivenhoe 341/494.) Pits at Alresford Creek, Brightlingsea, Stoke-by-Nayland, Bures and Holland. All grades of washed shingle, concreting sand and building sand. Road and water transport.  
**BAKER, F. AND E., LTD.**, 73 High Road, Rayleigh, Essex. (Tel.: 243.)  
**TOOTHAM, HEYBRIDGE AND WEST TILBURY.** All grades of washed material supplied and delivered; also hardcore, ashes and bricks.  
**BARON HILL QUARRIES (ELLIS AND EVERARD)**, LTD., near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)  
**BUCKRICKS COMPANY, LTD.**, Sand and Ballast Pits, Martlets, Ardleigh, Colchester. (Tel.: Ardleigh 310.) All grades of washed aggregates, sand, building sand, asphalt, grit, sterilised dry sand accurately graded to buyers' requirements.  
**DANGERFIELD, F. J., & CO., LTD.**, 261A Finchley Rd., London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)  
**FERRIS PITS, LTD.**, The Limes Garage, Fencelpe Road, Barking, Essex. (Tel.: Hainault 5271/2-3001/2.) Pits at Orsett, near Stanford-le-Hope, and Urmister. All grades of washed aggregates, plastering and building sands supplied and delivered, also hardcore and ashes.  
**HALL AND CO., LTD.**, Manor Road, Romford. (Tel.: Romford 42321.) Pits at Aveley, Boreham and Linford, near Grays. Gravel aggregates, concreting, plastering and building sand.  
**HUNNABLE, F. AND SON, LTD.**, Rayne Road, Braintree, Essex. (Tel.: Braintree 151 and 1351.) Graded washed stone, main to rejects; washed concrete sand, washed sand, washed gravel. Classified sand for asphalt. Ready mixed concrete to all grades. Pits at Braintree, Bocking, Beaslie End, Hedingham and Althamston.  
**LEIGH BUILDING SUPPLY CO., LTD.**, Head Office: 956 London Road, Leigh-on-Sea, Essex. (Tel.: 78264—5 lines.) All grades washed materials, building sand, hardcore, ashes, bricks, granite.  
**PETERS AND BARHAM, LTD.**, 309 South Street, Romford. (Tel.: Romford 44141—7 lines.) Washed and crushed gravel, all sizes; sand, Pits at Asheldham, Chignall St. James, Bagenham, Great Waltham, North Ockendon, Rowwell, West Thurrock.  
**PINCH, L. A. AND A., LTD.**, Upper Rainham Road, Hornchurch, Essex. (Tel.: Hornchurch 48912/3/4.) Haulage aggregates.  
**READ, P. T., LTD.**, Fairlop Airfield, Forest Road, H111/2/3/4. (Tel.: Hainault 6111/2/3/4.) High-grade sands, ballast and shingles supplied and delivered; also ready-mixed concrete.  
**ST. IVES SAND AND GRAVEL CO., LTD.**, 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4 and Halstead 2323.) Pits at St. Ives and Gosfield, near Halstead.  
**STANWAY CONTRACTS, LTD.**, Upper Edwards Hall, Ea.wood, Southend-on-Sea. (Tel.: Eastwood 53161.) Sand and gravel pits at Rochford and Woodham Walter. Graded aggregates supplied or delivered.  
**WELFORD GRAVELS, LTD.**, Head Office: Goldington, Bedford. (Tel.: 4587/8/9.) Washed and graded aggregates. Local office and pits: Tillingham 287.  
**WIVENHOE SAND, STONE AND GRAVEL CO., LTD.**, Wivenhoe, near Colchester, Essex. (Tel.: Wivenhoe 231.) High-quality washed aggregates of all grades.

## GLOUCESTERSHIRE

**AMEY'S AGGREGATES, LTD.**, Lower Wootton, Boars Hill, Oxford. (Tel.: Oxford 35421—10 lines.) Pits at Dry Sandford, near Abingdon, Sutton Courtenay, near Abingdon. (Tel.: Sutton Courtenay 275.) Theale, near Reading. (Tel.: Theale 358.) Dorchester, Northampton. (Tel.: Cogenhoe 464) for washed and graded aggregate to B.S.S.  
**BENGRY AND SONS, LTD.**, Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)  
**COKE, T. F. (CHELTENHAM), LTD.**, 267 Gloucester Road, Cheltenham. (Tel.: Cheltenham 4717/4874.) Sand, graded gravel aggregates, hardcore, limestone, chippings, tarred and bituminous limestone, concrete blocks, fence posts, etc.  
**CROFTALL QUARRIES, LTD.**, Cromhill, Wotton-under-Edge, Glos. (Tel.: Falfeld 346/7.) Concrete aggregates, pre-graded in large quantities. Tarmacadam, tarpaving, bituminous macadam and cold asphalt to B.S.S. for hand and machine laying.  
**FLOYD AGAR AND CO., LTD.**, Sherston, Malmesbury, Wilts. (Tel.: Sherston 237.) Cotswold building stone, hardcore, etc. (Details under Wiltshire.)  
**GRIFFITHS, A. AND SONS, Churchdown, Gloucester.** (Tel.: Churchdown 3125 and 2216.) Pit, quarry and dredger owners. All grades and types aggregate materials.  
**HALL AND CO., LTD.**, Longmoor House, Ashton Vale Road, Bristol, 3. (Tel.: 53001.) Gravel aggregates, concreting, plastering and building sand.

Rates for insertion in this GUIDE will be forwarded on application



# CONTRACTORS' GUIDE TO AGGREGATES

## GLoucestershire

**POOLE (LECHLADE), LTD.**, Gravel Pit, Burford Road, Lechlade, Glos. (Tel.: Lechlade 219.)

**TAYMAG, LTD.**, Wootton Bassett, Swindon. (Tel.: Wootton Bassett 391—5 lines.) (See Wiltshire.)

**WHITECLIFF QUARRIES AND BRICKWORKS, LTD.**, Coleford, Glos. (Tel.: Coleford 3158/9.) Tarrad and bituminous limestone macadam, asphalt, concrete aggregates, dolomitic media, engineering, facing and common bricks for all purposes. Delivery road or rail.

## Hampshire

**AMEY'S AGGREGATES, LTD.**, Lower Wootton, Boars Hill, Oxford. (Tel.: Oxford 35421—10 lines.) Pits at Dry Sandford, near Abingdon, Sutton Courtenay, near Abingdon. (Tel.: Sutton Courtenay 275.) Theale, near Reading. (Tel.: Theale 358.)

**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: Vigilant 2530.) (For details, see Leics.)

**BULL BROS. & SONS, LTD.**, 126A High Street, Winchester. (Tel.: 2264.) Concrete aggregates (reconstituted, pit-mixed, well-balanced to meet any specification); also ballast, hoggins, path gravel and sand from own pits at Fawley, Lockerley, Ringwood, Romsey, Sway and Totton.

**DANGERFIELD, F. J. AND CO., LTD.**, 261A Finchley Road, London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

**GILSON, S. C. AND SONS, LTD.**, Holcombe, near Bath. (Tel.: Stratton-on-the-Fosse 243.)

**HALL AND CO., LTD.**, Baltic Wharf, Marine Parade, Southampton. (Tel.: Southampton 21234.) and at Portsmouth. Pits at Ringwood, Highbridge and Totton. Gravel aggregate, concreting, plastering and building sand.

**HASKINS, G. AND SONS, Queen Street, Emsworth.** For washed sands and graded aggregates, path and road gravels, hoggins, clinker, ashes. (Tel.: Emsworth 227.)

**MOREYS (VEFWOOD), LTD.**, Verwood, Wimborne, Dorset. (Tel.: Verwood 234.) Concrete aggregates, building sand, hoggins, path gravel.

**NEW MILTON SAND AND BALLAST CO., Lymington Road, New Milton, Hants.** (Tel.: 37 and 566.) Guaranteed uncrushed, washed, screened and graded concrete aggregates. All sizes. Washed sharp and fine sands.

**PRIVETT, W. G. AND SONS, LTD.**, Drayton Lane, Portsmouth. (Tel.: Cosham 70059.) Concrete aggregates, building sand, hoggins, ashes, washed and graded filter media, etc.

**RALPH OF BASINGSTOKE, LTD.**, 37 Kempshott Lane, Basingstoke, Hants. (Tel.: 85.) Concrete aggregates, building sand, path gravel, hoggins, etc.

**WESSEX SAND AND GRAVEL CO., 126 Hillside Avenue, Southampton.** (Tel.: 6616.) Pits at Romsey and Fair Oak. Concrete aggregates, hoggins, building sand, etc.

**WRAYBURY SAND AND GRAVEL CO., LTD.**, Station Road, Theale, Reading, Berks. (Tel.: Theale 373.)

## Hertfordshire

**BENGR/ AND SONS, LTD.**, Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) Suppliers of all grades of crushed concrete aggregates, road materials, pitching stone, hardcore and coated macadam.

**CLEE HILL TRANSPORT AND ROLLING CO., LTD.**, Ludlow, Salop. (Cleehillstone 264.) (See Shrops.)

**NASH LOCKS, STONE AND LINE CO., LTD.**, Prestelgne, Radnor. (Tel.: Prestelgne 352.) All grades of tarred and bituminous macadam, roadstone, chippings and concrete aggregates, etc.

**OLD RADNOR TRADING CO., LTD.**, Kingston, (Tel.: 421.) Granite and limestone aggregates, coated macadam, concrete products.

**SALOP SAND AND GRAVEL SUPPLY CO.**, Adamston, Wellington. (Tel.: 2456.) Producers and distributors of all grades of washed aggregates.

**WHITECLIFF QUARRIES AND BRICKWORKS, LTD.**, Coleford, Glos. (Tel.: 3158/9.) (See Gloucestershire.)

## Hertfordshire

**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: Vigilant 2530.) (For details, see Leics.)

**DANGERFIELD, F. J. AND CO., LTD.**, 261A Finchley Road, London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

**LASTWOODS SALES, LTD.**, Eastwood House, City Road, E.C.1. (Tel.: Clerkenwell 2040.) Broxbourne pit. (Tel.: Hoddeston 2456.) Producers and distributors of all grades of washed aggregates.

**SABRIEL, C. LTD.**, Palmers Lane, Enfield, Middx. (Tel.: HOWard 4351/2/3.) Washed aggregates and building sand. Pits at Hertford and Enfield.

**HALL AND CO., LTD.**, Railway Yard, Orchard Road, Stevenage (Tel.: 775), and at Hatfield. Gravel aggregates, concreting, plastering and building sand.

**HARTIGAN, G. F. X., LTD.** (See Buckinghamshire.)

**ST. IVES SAND AND GRAVEL CO., LTD.**, 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4.) (See Huntingdonshire for details.)

**NEBB, G. CAMBRIDGE, 35 Magrath Ave., Cambridge.** (Tel.: 59966, 53969, 50353 (night).) (See Cambs.)

**WINFIELD, HENRY, LTD.**, Pix Farm Lane, Hemel Hempstead, Herts. (Tel.: Berkhamsted 1209/9.) Pits at Hemel Hempstead, Watford, West Hyde, Rickmansworth. Concrete aggregates, hoggins, building sand.

## Huntingdonshire

**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: Vigilant 2530.) Best Leicester-shire grey granite, dry and coated gradings to any specification, cold asphalt and wet mix. Prompt rail/road delivery.

**CLIFFE HILL GRANITE CO., LTD.**, Markfield, near Leicester. (Tel.: Markfield 561/2/3.) Granite aggregates to B.S. All sizes. Tarred and bituminous granite, concrete slabs and kerbs. Transmitted concrete.

**DUSTON STONE QUARRIES, LTD.**, New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) Granite aggregates to B.S. All sizes.

**ENDERBY AND STONEY STANTON GRANITE CO., LTD.**, 21 New Walk, Leicester. (Tel.: 56682.) Quarries at Enderby. London Offices: 29 Dorset Square, N.W.1. (Tel.: Amb. 1141.)

**HILTON GRAVEL LTD.**, Hemington, fields, near Shardlow, Derby. (Tel.: Shardlow 266.)

**HOVERINGHAM GRAVEL CO., Hoveringham, Nottingham.** (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

**MOUNTSOREL GRANGE CO., LTD.**, 21 New Walk, Leicester. (Tel.: 56682.) Quarries at Mountsorel, near Loughborough. Main pink granite a speciality. London Office: 29 Dorset Sq., N.W.1. (Amb. 1141.)

## Huntingdonshire

**WEBB, G. CAMBRIDGE, 35 Magrath Ave., Cambridge.** (Tel.: 59966, 53969, 50353 (night).) (See Cambs.)

**WELFORD GRAVELS, LTD.**, Head Office: Goldington, Bedford. (Tel.: 4587/8/9.) (See Bedfordshire.)

## Kent

**BRATED SAND PITS, Brasted, Kent.** (Tel.: 586.) London office: 10A Elbery Street, S.E.15. (Tel.: New Cross 3337.) Soft and plastering sands, lime and sand-mix dry, hardcore, S.H. bricks, ashes, etc.

**BROWN BROS. (SITTINGBOURNE), LTD.**, Chalkwell Road, Sittingbourne, Kent. (Tel.: Sittingbourne 330.) Sand, ballast, shingle, hoggins, hardcore, clinker, chalk, etc.

**CLUBB, J. LTD.**, Dartford, Kent. (Tel.: Dartford 25431.) Pits in North Kent, Medway area and Sevenoaks district. All washed and crushed gravel aggregates, concreting and building sand.

**DIAMOND TREAD CO. (1938), LTD.**, Ditton Court Quarry, Larkfield, near Maidstone. (Tel.: West Malling 3444.) Quarry owners; tarmac-macad, bituminous macadam and dry road stone manufacturers and suppliers. Head Office: 21-22 Old Bailey, London, E.C.4. (Tel.: City 7001—10 lines.)

**DIAMOND TREAD CO. (CHART), LTD.**, Swan Lane Quarries, Little Chart, Ashford, Kent. Quarry owners; tarmac-macad, bituminous macadam and dry roadstone suppliers. All inquiries to Area Office: Ditton Court Quarry, Larkfield, near Maidstone, Kent. (Tel.: W. Malling 3444.)

**HALL AND CO., LTD.**, Canning Street, Maidstone. (Tel.: Maidstone 51051.) and at Folkestone and Hayes. Pits at Lunsford, near Larkfield. Gravel aggregates, concreting, plastering and building sand, Surecrete precision-mixed concrete.

**HARRIS, M. P. AND CO., LTD.**, Station Road, Paddock Wood, Kent (Tel.: 385.) (See Sussex.)

**TILBURY CONTRACTING AND DREDGING CO., LTD.**, Postley, Maidstone. (Tel.: Maidstone 55401/2/3.) Suppliers of tarred, bituminous and dry kerbs, roadstone, sea walling, asphalt fillers, Scotch granite and kerbing.

## Lancashire

**BROOMBYS, LTD.**, Sandside, Milnthorpe (Tel.: 3251/2.) Westmorland. (See Westmorland.)

**BUCKTON QUARRY, Broken stone, all grades.** (Tel.: Mossley 123.) Or write Main Road, Oldham.

**CASTLETON SAND AND GRAVEL QUARRIES, LTD.**, Trows Lane, Castleton, nr. Rochdale. (Tel.: Castleton 57100.) Lee Quarries, Bacup. (Tel.: Bacup 287.) Washed pit sand, crushed washed stone aggregates; pitching stone.

**CROXDEN GRAVEL LTD.**, Cheadle, Stoke-on-Trent. (Tel.: Stoke 395.) Plant capacity, 2,000 tons per day.

**DUNNING AND SON, LTD.** (See Shropshire.)

**HARTLEY, JOHN W., LTD.**, Lundsfield Quarry, Carnforth, Lancs. (Tel.: Carnforth 100.) Large producers of highest quality washed sands, clean washed natural pebble and crushed gravel aggregates for all construction purposes.

**HILTON GRAVEL LTD.**, Rice Street, Liverpool Road, Manchester, 3. (Tel.: Deansgate 5455 and 5456.) Quarries at Cheadle, Staffs. (Tel.: Tean 241.) And at Longton, Stoke-on-Trent. (Tel.: Longton 32196.)

**HULLAND GRAVEL CO., LTD.**, Cheadle, Stoke-on-Trent. (Tel.: Cheadle 2323/4, 2119 and 2185.) Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)

**PENMAENMAWR AND WELSH GRANITE CO., LTD.**, Cheadle, Stoke-on-Trent. (Tel.: Cheadle 2323/4, 2119 and 2185.) Immediate delivery ex stock. Liverpool and Preston Depots: 72 Seaford Road, Liverpool, 15. (Tel.: Sefton Park 7261.) Manchester Depot: Office: Cornbrook Road, Manchester, 15. (Tel.: Trafford Park 3930.)

**TERN HILL SAND AND GRAVEL CO., LTD.**, Alington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

**TRENTHAM GRAVEL CO., LTD.**, Lodsley Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice-washed sharp concreting sand. Plant capacity: 2,000 tons per day.

**WELFORD GRAVELS LTD.**, Head Office: Goldington, Bedford. (Tel.: 4587/8/9.) Local Offices and pits: Chorley 3923 and Wigan 82039.

**WITHERS LIMESTONE, LTD.**, Black Lane Quarry, Carnforth. (Tel.: Carnforth 327.) Graded limestone aggregate to B.S., all sizes. Immediate delivery ex stock.

**X.L. GRANITE (INGLETON), LTD.**, Head Office: Clapham, via Lancaster. (Tel.: Clapham 318/9.) Works: 505, Picton Road, Northamptonshire. All sizes and gradings of Ingleton granite aggregate.

## Leicestershire

**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London Office: Vigilant 2530.) Best Leicester-shire grey granite, dry and coated gradings to any specification, cold asphalt and wet mix. Prompt rail/road delivery.

**CLIFFE HILL GRANITE CO., LTD.**, Markfield, near Leicester. (Tel.: Markfield 561/2/3.) Granite aggregates to B.S. All sizes. Tarred and bituminous granite, concrete slabs and kerbs. Transmitted concrete.

**DUSTON STONE QUARRIES, LTD.**, New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) Granite aggregates to B.S. All sizes.

**ENDERBY AND STONEY STANTON GRANITE CO., LTD.**, 21 New Walk, Leicester. (Tel.: 56682.) Quarries at Enderby. London Offices: 29 Dorset Square, N.W.1. (Tel.: Amb. 1141.)

**HILTON GRAVEL LTD.**, Hemington, fields, near Shardlow, Derby. (Tel.: Shardlow 266.)

**HOVERINGHAM GRAVEL CO., Hoveringham, Nottingham.** (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

**MOUNTSOREL GRANGE CO., LTD.**, 21 New Walk, Leicester. (Tel.: 56682.) Quarries at Mountsorel, near Loughborough. Main pink granite a speciality. London Office: 29 Dorset Sq., N.W.1. (Amb. 1141.)

## Leicestershire

**WANLIP GRAVELS, LTD.**, Wanlip Road, Syston, Leicestershire. Any size or grading, scientifically balanced ballast. All to B.S. (Tel.: Syston 2327 and 2797.)

**WELFORD GRAVELS, LTD.**, Head Office: Goldington, Bedford. (Tel.: 4587/8/9.) (See Northamptonshire.)

**WREAKE VALLEY GRAVELS CO., LTD.**, Melton Mowbray. (Tel.: Pits—Rotherby 205 or head office Melton 2488.) All grades washed aggregates and sand.

## Lincolnshire

**CONINGSBY SUPPLY CO., LTD.**, Registered Office: The Broadway, Woodhall Spa, Lincs. (Tel.: Woodhall Spa 3150.) Screened limestone, hardcore, pitching, filling, flint, hoggins. Ex quarries or delivered.

**DOW-MAC (PRODUCTS), LTD.**, Tallington, Stamford. All grades of washed sand and gravel. (Tel.: Market Deeping 2301.)

**EAST MIDLANDS BUILDERS' SUPPLY CO.**, 21 Cante-dyke West, Barton-on-Humber, Lincs. (Tel.: Barton 2189.) All grades washed sand and gravel, roadstone, hardcore, washed silica sand.

**GIBBONS, F. B. AND SONS, LTD.**, Registered Office: Welby House, Market Deeping, near Peterborough. (Tel.: Market Deeping 3321/2383.) Pits at Lough, near Peterborough. (Tel.: Market Deeping 2210.) All grades washed sand and aggregate.

**HARTSHOLME GRAVEL AND SAND CO., LTD.**, Hartsholme Wood, Doddington Road, Lincs. Sole selling agents: Hartsholme Sales, Ltd., 17 West Parade, Lincoln. (Tel.: 4338.)

**HOVERINGHAM GRAVEL CO., Hoveringham, Nottingham.** (Tel.: Lowdham 3171—15 lines.) (For details, see Nottinghamshire.)

**HURDIS, J. W., LTD.**, Victoria Street, Grimsby (Tel.: Grimsby 3657) and Calster. (Tel.: Calster, Lincs. 281.) Building, plastering, concreting sand, gravel, ballast, hoggins and roadmaking materials.

**PETERBOROUGH QUARRIES, LTD.**, Sandvane, Maxey, Peterborough. (Tel.: Market Deeping 2355—3 lines.) Quarry at Rosely, all grades of hardcore and broken stone. (See also Northants.)

**POLLARD, C. AND SON (TALLINGTON), LTD.**, Walk House, Langthorpe, Peterborough. Pits at Tallington, near Stamford, Lincs. (Tel.: Market Deeping 2140.) All grades washed sand and aggregate. For Supercrete ready mix concrete, phone Market Deeping 31.

**TRENTFORD GRAVELS, LTD.**, Head Office: Deansgate, Grimsby. (Tel.: Grimsby 5354.) Washed and graded gravel and sand, roadstone, hardcore, slag, tarmac, ashes, etc. Pits and quarries throughout the county.

## London

**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: Vigilant 2530.) (For details, see Leics.)

**BUCKBRICKS COMPANY, LTD.**, 57 Piazza Chambers, Covent Garden, London, W.C.2. (Tel.: Covent Garden 0534.) All grades of washed aggregate, sand, building sand, asphalt, grit. Sterilised sand accurately graded to buyers' requirements.

**COX, H. AND SONS, LTD.**, 33 Southampton Way, Camberwell, S.E.5. (Tel.: Rodney 2215—3 lines.)

**DANGERFIELD, F. J. AND CO., LTD.**, 261A Finchley Road, N.W.3. (Tel.: HAMstead 8044/8.) Granite limestone or slag, coated or dry, all sizes and pitching, granite kerbs and setts, felspar quarry and other minerals by road or rail, or ex London stock.

**DORSET LIMESTONES, LTD.**, Bumpers Lane, Easton Portland, Dorset. (Tel.: Portland 2207/8.) (For details, see Dorset.)

**DRINKWATER, W. W. (WILLESDEN), LTD.**, Dodder Hill Lane, Willesden, N.W.10. (Tel.: GLADstone 6400/5.) Pits: Rush Green, Deanside, Bucks. (Tel.: Denham 2241/2/3.) Also Staines Road, Hounslow Heath, Middlesex. (Tel.: Hounslow 6222/3.)

**GABRIEL, C. LTD.**, Palmers Lane, Enfield, Middx. (Tel.: HOWard 4351/2/3.) Washed aggregates and building sand. Pits at Enfield and Hertford.

**GREENHAM SAND AND BALLAST CO., LTD.**, Chertsey Road, Feltham. (Tel.: Feltham 2285/7.) Pits at Hounslow, Feltham and Staines. Concrete aggregates, plastering and building sand.

**HALL AND CO., LTD.**, Chantry House, Eccleston Street, S.W.1. (Tel.: Sloane 7122.) and at East Dulwich, Poplar and Wandsworth. Gravel, quarry and gates, concreting, plastering and building sand.

**HARTIGAN, G. F. X., LTD.**, Washed sand and B.S. 892. (See Buckinghamshire.)

**KEEN, W. J. AND SONS, 18 Granville Road, Epsom, Essex.** (Tel.: Epping 2520.) All sands, ballast, shingle and hardcore supplied.

**LONDON BALLAST CO., LTD.** (Tel.: Paddington 504, 55A Porchester Terrace North, Paddington, W.4.)

**READ, P. T., LTD.**, Gales Gardens, Bethnal Green, E.2. (Tel.: Shoreditch 9128/9.) All sands, ballast and shingles supplied and delivered; also road mixed concrete. Pits: Fairlop Road, Forest Hill, Ilford, Essex. (Tel.: Hainault 6111/2/3.)

## Merionethshire

**SALOP SAND AND GRAVEL SUPPLY CO.**, Adamston, Wellington (Tel.: 961), Salop.

**MIDDLESEX**

**CROSS, GEO. C. AND CO., LTD.**, Uxbridge Road, Southall. (Tel.: Southall 2264/5/6.) Concrete aggregates, hardcore, excavations, demolition sand.

**DRINKWATER, W. W. (WILLESDEN), LTD.**, Staine Rd., Hounslow Heath, Middx. (Hounslow 6222/3.)

**GABRIEL, C. LTD.**, Palmers Lane, Enfield, Middx. (Tel.: HOWard 4351/2/3.) Washed aggregates and building sand. Pits at Enfield and Hertford.

**GREENHAM SAND AND BALLAST CO., LTD.**, Chertsey Road, Feltham. (Tel.: Feltham 2285/7.) Pits at Hounslow, Feltham and Staines. Concrete aggregates, plastering and building sand.

**GRUNDON, S.**, 79 Harrington Road, Middlesex. (Tel.: Uxbridge 6156.) Sand, ballast, shingle, hardcore, ashes, excavation and demolition sand.

**HALL AND CO., LTD.**, Chantry House, Eccleston Street, S.W.1. (Tel.: Sloane 7122.) and at East Dulwich, Poplar and Wandsworth. Gravel, quarry and gates, concreting, plastering and building sand.

**LONDON BALLAST CO., LTD.** (Tel.: Paddington 504, 55A Porchester Terrace North, Paddington, W.4.)

# CONTRACTORS' GUIDE TO AGGREGATES

## MIDDLESEX

**HEAD, P. T., LTD.**, Gales Gardens, Bethnal Green, E2. (Tel.: Shoreditch 9128/9.) All sands, ballast and shingles supplied and delivered; also ready-mixed concrete. **PIND EDWINTON GRAVEL PITS**, Montagu Road, N.9. (Tel.: Shoreditch 9128/9.) and Fairlop Alford, Forest Road, Ilford (Tel.: Hainault 6111/2.)  
**STUART MACEY, LTD.**, Gordon Road, High Wycombe (Tel.: High Wycombe 2591/2.)  
**THAMES SAND AND GRAVEL CO., LTD.**, Fordbridge Road, Shepton, (Tel.: Watlington-Thames 23616.) Gravel aggregates, concreting, plastering and building sand.  
**WATTS SAND AND GRAVEL CO., LTD.**, Pitts at Watbury. (Tel.: Watbury 164.) Gravel aggregates, concreting, plastering and building sand.

## MID-WALES

**HENRY AND SONS, LTD.**, Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)  
**NASH ROCKS STONE AND LIME CO., LTD.**, Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)  
**OLD RADNOR TRADING CO., LTD.**, Quarries in Radnorshire. (Tel.: Kingston 421.) (See Herefordshire for details.)  
**SALOP SAND AND GRAVEL SUPPLY CO.**, Admaston, Wellington. (Tel.: 961.) Salop.  
**TERN HILL SAND AND GRAVEL CO., LTD.**, Alington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

## MONMOUTHSHIRE

**IN-SITU CONCRETE, LTD.**, Victoria Works, Ebbw Vale (Tel. 3032), and Phoenix Works, Cardiff (Cardiff 63311), for limestone and slag aggregates, ready-mixed concrete, tarmacadam, media, filling, etc., kerbs and pavings.  
**MONMOUTHSHIRE ASSOCIATED QUARRIES, LTD.**, Head Office 38, Chepstow Road, Newport, Mon. (Tel.: Newport 58311/2.) Suppliers of all grades of concrete aggregates, road metalling, pitching stone, tarmacadam and bituminous macadam, in limestone, dolomite and blue pennant stone. Quarries throughout the county.  
**WHITFIELD QUARRIES AND BRICKWORKS, LTD.**, Coleford, Glos. (Tel. 3158/9.) (See Gloucestershire.)

## MONTGOMERYSHIRE

**NASH ROCKS STONE AND LIME CO., LTD.**, Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)  
**SALOP SAND AND GRAVEL SUPPLY CO.**, Admaston, Wellington. (Tel.: 961.) Salop.

## NORFOLK

**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)  
**DUNN, P. C. H., LTD.**, Station Road, Terrington St. Clement, near King's Lynn. (Tel.: Terrington St. Clement 248.) Washed and screened gravel, roadstone, washed sharp and fine sands.  
**ELLS AND GRAVEL CO., LTD.**, 22 The Quadrant, St. Ives, Huntingdon. (Tel.: St. Ives 24412/3/4 and 24415.) Washed and screened gravel, roadstone, washed sharp and fine sands.  
**NETTERTON STONE QUARRIES, LTD.**, Pix Farm near Netterton, Herts. (Tel.: Berkhamstead 1208/9.) Pits at Netterton. Concrete aggregates, building sand.  
**NETTERTON GRAVEL PITS, LTD.**, Harvey Lane, Norwich. (Tel.: Norwich 33243/4.) Washed and graded aggregates, stone and gravel delivered to all parts of Norfolk and Suffolk.

## NORTHAMPTONSHIRE

**AMEY'S AGGREGATES, LTD.**, Lower Wootton, Boars Hill, Oxford. (Tel.: Oxford 35421—10 lines.) Pits at Dry Sandford, near Abingdon, Sutton Courtenay, near Abingdon. (Tel.: Sutton Courtenay 275.) Theale, near Reading. (Tel.: Theale 358.) Dorchester, Oxon. (Tel.: Clifton Hampden 236.) Billing, Northampton. (Tel.: Cogenhoe 464) for washed and graded aggregates to B.S.S.  
**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)  
**BICESTER STONE CO., LTD.**, Stratton Audley, Leicestershire and suppliers of all grades limestone tarmacadam, dry, pitching stone, hardcore, etc.  
**BILLING GRAVEL CO., LTD.**, Station Road, Billing, Northampton. (Tel.: Cogenhoe 219.) London Office: 23 Berkeley Square, W.1. (Tel.: Mayfair 6341.)  
**HAYBROOK, E. W., LTD.**, Newton Road, Higham Ferrers, Northants. (Tel.: Rushden 3344 and 3345.) All grades of washed and graded aggregates to B.S.S., building sand, hardcore.  
**DOV-MAC (PRODUCTS), LTD.**, Tallingston, Stamford. All grades of washed sand and gravel. (Tel.: Market Deeping 2301.)  
**DUSTON STONE QUARRIES, LTD.**, New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) Producers of building and walling stone, roadstone, hardcore, broken stone, ashes, sand, gravel and hoggins. Immediate delivery throughout Northamptonshire.  
**FERRISAND AGGREGATES, LTD.**, Northampton Road Quarries, Rushden, Northants. (Tel.: Rushden 3345.) Largest producers in the county of all grades of high-quality concrete aggregate to B.S.S. Deliveries throughout Northamptonshire and adjoining counties.  
**GIBBONS, F. B. AND SONS, LTD.**, Welby House, Market Deeping, Peterborough. (Tel.: Market Deeping 3321/2383.) (See Lincolnshire for details.)  
**HOVERINGHAM GRAVEL CO.**, Hoveringham, Nottinghamshire. (Tel.: Lowdham 3171—13 lines.) (For details, see Nottinghamshire.)  
**KETTON STONE CO. (Prop.: Andrew's Garage),** Ketton, near Stamford. (Tel.: Ketton 206.) Hardcore, roadstone, crushed stone, top soil, silica clay. Quarries at Ketton.  
**MACKANESS, A. J., LTD.**, Ransome Road, Northampton. (Tel.: Northampton 589.) Producers of washed aggregates. Building sand, tarmacadam (lime sand mortar). Prompt deliveries.  
**NINE BARGE AND LIGHTER CO., LTD.**, Market Chambers, Peterborough. (Tel.: 234/5.) and Ship Lane Quarries, Wansford, near Peterborough (Tel.: Wansford 384/5.) Roadstone, hardcore, broken stone, ballast, ashes, silica clay and sand.

## NORTHAMPTONSHIRE

**NEWARK (PETERBOROUGH) SAND AND GRAVEL CO., LTD.**, 127 Eastfield Road, Peterborough. (Tel.: Peterborough 2091.) All grades washed and screened gravel and sand.  
**PETERBOROUGH QUARRIES, LTD.**, Sandylands, Maxey, Peterborough. (Tel.: Market Deeping 2355.) Eight quarries supplying all grades of hard- and broken stone. Also Wetmix at Yarwell, Wansford. All grades gravel and sand at Maxey.  
**POLLARD, C. AND SON (TALLINGTON), LTD.**, Walk House, Langtoft, Peterborough. (Tel.: Market Deeping 2140.) (See Lincolnshire for details.)  
**STORTON, F. E., LTD.**, Weedon Road, Northampton. (Tel.: Northampton 3358.) Producers of washed gravel and sand to B.S.S.  
**WELFORD GRAVELS, LTD.**, Head Office: Goldington, Bedford. (Tel.: 4587/8/9.) Largest producers of all grades of washed aggregates in Northamptonshire and Bedfordshire. Regular deliveries anywhere. Local office and pits: Forty Ford. (Tel.: Welford 256.)

## NORTH WALES

**CAWOOD, WHARTON AND CO., LTD.**, Platyll Gwyn Quarry, Llanarmon, near Mold. (Tel.: Llanarmon-y-n-Ial 27.) Crushed limestone and tarmacadam, all grades.  
**CHESHIRE AND NORTH WALES TARRED MACADAM CO., LTD.**, Llanarmon, near Mold. (Tel.: Llanarmon-y-n-Ial 43.) Hard, broken limestone; dry and coated to B.S.S. Inquiries to Registered Office—Market Chambers, Tower Square, Tunstall, Stoke-on-Trent. (Tel.: Stoke-on-Trent 88094.)  
**ENSTON BROS., Llyn Isaf Quarry, Cynnog Fawr, Caernarvon. (Tel.: Cynnog Fawr 297/8.)** All sizes crushed, washed natural sand and gravel. Highest quality. Precast concrete products, ex our Griffiths Crossing Factory, Caernarvon. (Tel.: Caernarvon 2535/6.) Crushed granite, ex our quarry, Pengwern and Gwydyr Quarries, Ltd., Trefriw, Llanrwst, Denbighshire. (Llanrwst 38.)  
**PENMAENMAWR AND WELSH GRANITE CO., LTD.**, Quarries at Penmaenmawr. (Tel.: 2256/8.) and at Trefriw. (Tel.: Llanrwst 38.) Hard, broken limestone. All sizes and gradings of crushed granite aggregate. Any quantity per day; immediate delivery by road. Coated granite also available.  
**RUTHIN AND DENBIGH TARMACADAM CO., LTD.** (a member of the Linn, Comley and Pitt Group), Denbigh. (Tel.: Denbigh 75.) Lime, limestone, carbonate of lime, tarmacadam, etc. Also inquiries to Lunt Bros., Ltd., Gazette Buildings, 168 Corporation Street, Birmingham (Tel.: Central 7408), and Lunt Bros., Ltd., Stourbridge (Tel.: 5201—8 lines.)  
**TERN HILL SAND AND GRAVEL CO., LTD.**, Alington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffs. for details.)

## NOTTINGHAMSHIRE

**AIZLEWOOD, DOUGLAS E.**, Sow Bridge, Rotherham. (Tel.: Rotherham 2622.) Crushed and graded limestone; all grades of washed gravel and sands.  
**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)  
**GLEN QUARRIES, LTD.**, Central Chambers, Wellgate, Rotherham. (Tel.: Rotherham 5223.) Crushed and graded stone, concrete sand, building sand, plastering sand and crushed gravel; could be collected ex quarry or delivered.  
**GUNTHORPE GRAVELS (1958), LTD.** (Tel.: Nottingham 77357 and Works: Lowdham 2131.) (An associate of C. Campbell, see Leics.) All grades washed gravel and sand to B.S.S.  
**HOVERINGHAM GRAVEL CO.**, Hoveringham, Nottinghamshire. (Tel.: Lowdham 3171—13 lines.) Quarries at Hoveringham, Holme Pierrepont, Colwick, Bleasby and Newark. All grades of washed gravel and sand to any specification. Crushed quartzite or surface dressing of roads a speciality. Plant capacity 8,000 tons per day.  
**NEWARK GRAVEL AND CONCRETE CO., LTD.**, Grove Street, New Balderton, Newark, Notts. (Tel.: Newark 401.) All grades washed sand and aggregates.  
**NORTH NOTTS. GRAVEL CO., LTD.**, Bellmoor, Rotherham. (Tel.: 41081/2/3.) Sand and all grades to 272/273.) (For details, see Derbyshire.)

## OXFORDSHIRE

**AMEY'S AGGREGATES, LTD.**, Lower Wootton, Boars Hill, Oxford. (Tel.: Oxford 35421—10 lines.) Pits at Dry Sandford, near Abingdon, Sutton Courtenay, near Abingdon. (Tel.: Sutton Courtenay 275.) Theale, near Reading. (Tel.: Theale 358.) Dorchester, Oxon. (Tel.: Clifton Hampden 236.) Billing, Northampton. (Tel.: Cogenhoe 464) for washed and graded aggregates to B.S.S.  
**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)  
**BENGRY AND SONS, LTD.**, Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)  
**BICESTER STONE CO., LTD.**, Stratton Audley, Leicestershire and suppliers of all grades limestone tarmacadam, dry, pitching stone, hardcore, etc.  
**CURTIS, J. AND SONS, LTD.**, Botley Works, Oxford. (Tel.: Oxford 41081/2/3.) Sand and all grades at washed aggregates. Pits at Radley, near Abingdon. (Tel.: Abingdon 4411.)  
**DANGERFIELD, F. J., LTD.**, 261A Finchley Road, London, N.W.3. (Tel.: HAMSTEAD 8044/8.) For all road aggregates, kerbs, setts. (See London.)  
**DIX, G. H. AND SON, LTD.**, Freela id, Oxon. (Tel.: Eynsham 234.)  
**DUSTON STONE QUARRIES, LTD.**, New Duston, Northampton. (Tel.: Brixworth 278 and 298; Duston 505.) (See Northamptonshire.)  
**GRUNDON, S. (EWELEME), LTD.**, Eweleme, Oxon. (Tel.: Eweleme 20.) London Office (Tel.: Uxbridge 4156.) All grades washed aggregates. Path hoggins broken stone, building sand.  
**HAINES, H. (WITNEY), LTD.**, Oxford Road, Witney. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone, Cotswold building and walling stone.  
**SNETTERTON STONE QUARRIES, LTD.**, Pix Farm Lane, 4emel Hempstead, Herts. (Tel.: Berkhamstead 1208/9.) Roadstone, Cotswold building and walling stone.  
**WRAYSBUURY SAND AND GRAVEL CO., LTD.**, Theale, Reading, Berks. (Tel.: Theale 373.)

## RADNORSHIRE

**BENGRY AND SONS, LTD.**, Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)  
**CLEE HILL TRANSPORT AND ROLLING CO., LTD.**, Ludlow, Salop. (Cleehillstone 284.) (See Shrops.)  
**NASH ROCKS STONE AND LIME CO., LTD.**, Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)  
**OLD RADNOR TRADING CO., LTD.**, Quarries in Radnorshire. (Tel.: Kingston 421.) (See Herefordshire.)  
**SALOP SAND AND GRAVEL SUPPLY CO.**, Admaston, Wellington. (Tel.: 961.) Salop.

## RUTLAND

**GIBBONS, F. B. AND SONS, LTD.**, Welby House, Market Deeping, Peterborough. (Tel.: Market Deeping 3321/2383.) (See Lincolnshire for details.)  
**HOVERINGHAM GRAVEL CO.**, Hoveringham, Nottinghamshire. (Tel.: Lowdham 3171—13 lines.) (For details, see Nottinghamshire.)

**KETTON STONE CO. (Prop.: Andrew's Garage),** Ketton, near Stamford. (Tel.: Ketton 206.) Hardcore, roadstone, crushed stone, top soil, silica clay. Quarries at Ketton.

**PETERBOROUGH QUARRIES, LTD.**, Sandylands, Maxey, Peterborough. (Tel.: Market Deeping 2355.) Quarry at Greetham, all grades of broken stone and hardcore. (See also Northamptonshire.)

**POLLARD, C. AND SON (TALLINGTON), LTD.**, Walk House, Langtoft, Peterborough. (Tel.: Market Deeping 2140.) (See Lincolnshire for details.)

## SCOTLAND

**KEIR AND CAWDER, LTD.**, Kirkintilloch Road, Bishopbriggs. (Tel.: Bishopbriggs 3200.) All grades washed sand and gravel aggregates.

## SHROPSHIRE

**BALLIDON QUARRIES, LTD.**, Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. 802 and 1621 and wetmix; large output; reliable deliveries.  
**BENGRY AND SONS, LTD.**, Longmoor, Kingsland, Leominster, Herefordshire. (Tel.: Kingsland 301/4.) (See details under Herefordshire.)  
**CLEE HILL TRANSPORT AND ROLLING CO., LTD.**, Ludlow, Salop. (Tel.: Cleehillstone 284.) Granite stone, tarmac, chippings, filling media, setts, limestone, crushed and walling stone, gravel, sand, hardcore and ashes.  
**DORRINGTON SAND AND GRAVEL QUARRIES**, near Shrewsbury. (Tel.: Dorrington 276.) Supplies of ready mixed concrete, building sand, washed sand, washed and crushed gravel.  
**DUNNING AND SON, LTD.**, Haughmond Quarry, near Shrewsbury. (Tel.: Upton Magna 286/7.) All grades of high-quality roadstone, concrete aggregates and coated macadam. All to B.S.S. Any tonnage available for immediate delivery.  
**NASH ROCKS STONE AND LIME CO., LTD.**, Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)  
**OLD RADNOR TRADING CO., LTD.**, Kingston. (Tel.: 421.) (See Herefordshire.)  
**SALOP SAND AND GRAVEL SUPPLY CO.**, Admaston, Wellington. (Tel.: 961.) Salop.  
**TERN HILL SAND AND GRAVEL CO., LTD.**, Alington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) (See Staffordshire for details.)  
**TRENTMOUTH GRAVEL CO., LTD.**, Lodsley Quarries, Willoughby, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp plastering sand. Plastering sand. Plant capacity: 2,000 tons per day.

## SOMERSET

**ASHAM QUARRY CO., LTD.**, Chantry, Frome. (Tel.: Nunney 351.) All sizes limestone block, broken and aggregates. Farrowed and bituminous macadam to B.S. Ex quarry and delivered.  
**DANGERFIELD, F. J. AND CO., LTD.**, 261A Finchley Road, London, N.W.3. (Tel.: HAMSTEAD 8044/8.) For all road aggregates, kerbs, setts. (See London.)  
**GILSON, S. C. AND SONS, LTD.**, Holcombe, near Bath. (Tel.: Stratton-on-the-Fosse 243.)  
**HAINES, H. (WITNEY), LTD.**, Witney, Oxford. (Tel.: Witney 42.) All grades washed aggregates, hardcore, pitching and broken stone, Cotswold building and walling stone.  
**WAINWRIGHT, JOHN AND CO., LTD.**, Shepton Mallet. (Tel.: Shepton Mallet 2366/7.) All sizes basalt, coated basalt, concrete aggregates, filtering media, building blocks and slabs.

## SOUTH SCOTLAND

**ESK MANUFACTURING CO., LTD.**, Carlisle. (Tel.: Carlisle 2-4941.) (For details see Cumberland.)

## SOUTH WALES

**IN-SITU CONCRETE, LTD.**, Victoria Works, Ebbw Vale (Tel. 3032), and Phoenix Works, Cardiff (Cardiff 63311), for limestone and slag aggregates, ready-mixed concrete, tarmacadam, media, filling, etc., kerbs and pavings.  
**PENMAENMAWR AND WELSH GRANITE CO., LTD.**, 18 Quay Street, Cardiff. (Tel.: 20646/7.) All sizes and gradings of crushed granite aggregate from our Cardiff and Swansea Dock Depots. Dolomite and limestone aggregates. (See London.)  
**SESSIONS AND SONS, LTD.**, West Dock, Cardiff. Producers of coarse and fine aggregate, dredged and graded to British Standards. Branches Newport and Swansea. (Also Gloucester and Hereford.)  
**SOUTH WALES SAND AND GRAVEL CO., LTD.**, Head Office: P.O. Box 8, Beaufort Buildings, Swansea. (Tel.: Swansea 53071.) Sand and gravel merchants, builders' merchants, Pennant Quarry owners, slag, hardcore, ashes, filling, graded linker, filter media. Depots: Cardiff, Newport, Barry, Port Talbot, Bridport Ferry, Swansea, Llanelli.

## STAFFORDSHIRE

**BALLIDON QUARRIES, LTD.**, Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. 802 and 1621 and wetmix; large output; reliable deliveries.  
**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: VIGILANT 2530.) (For details, see Leics.)

# CONTRACTORS' GUIDE TO AGGREGATES

## STAFFORDSHIRE

**CROXDEAN GRAVEL LTD.**, Cheadle, Stoke-on-Trent, Staffs. (Tel.: Tean 393.) Manchester Office: Blackfriars 3766/7. Plant capacity, 2,000 tons per day.

**DUNNING AND SON, LTD.**, Wood End Gravel Pits, Hednesford. (Tel.: Hednesford 302/325.) Washed sand and gravel. All to B.S.S. High-quality roadstone, concrete aggregates and coated macadam from our Haughmond Quarry, near Shrewsbury. (See Shropshire.)

**HILTON GRAVEL LTD.**, Cheadle, Staffs. (Tel.: Tean 241.) Also at Longton, Stoke-on-Trent (Tel.: Longton 32196) and Stretton, Burton-on-Trent (Tel.: Burton 6061).

**HULLAND GRAVEL CO., LTD.**, Cheadle, Stoke-on-Trent. (Tel.: Cheadle 2323/4, 2119 and 2195.) Manchester Office: 464 Wilbraham Road, Chorlton, Manchester, 21. (Tel.: Chorlton 2274/5.)

**KEVIN LIME CO., LTD.**, Oakmoor, Staffs. (Tel.: Oakmoor 385-386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

**RUGLEY GRAVEL CO., LTD.**, Rugley Quarries, Rugley, Staffs. (Tel.: Rugley 251/2.) Entirely modern plant. Sand classifiers. Finest aggregates to B.S.S. Large output.

**SALISBURY AND WOOD, LTD.**, Matlock. (Tel.: 272/273.) (For details, see Derbyshire.)

**SHIRE OAK GRAVELS, LTD.**, Lichfield Road, Walsall Wood, Staffs. Washed crushed gravel and washed sand. (Tel.: Brownhills 3253.)

**TERN HILL SAND AND GRAVEL CO., LTD.**, Alimington Quarries, near Market Drayton, Staffs. (Tel.: Hales 261/2/3.) Pit sand, concrete sand, and all grades of washed crushed gravel. Hardcore, clinkers, ashes and hoggins.

**TRENTHAM GR L CO., LTD.**, Lodsley Quarries, Willoughbridge, near Market Drayton, Salop. (Tel.: Pipe Gate 304/5.) All sizes crushed or natural washed gravel. Twice washed sharp concreting sand. Plant capacity 2,000 tons per day.

**WINDMILL SAND AND GRAVEL QUARRIES, LTD.**, Cannock Road, Wolverhampton. (Tel.: 31108.) Concrete aggregates, plastering, building and asphalt sand. All to B.S.S.

**WARDLOW LIMESTONE, LTD.**, Cauldon Low, N. Staffs. (Tel.: Oakmoor 385.) Graded limestone for all purposes. Ground limestone.

## SUFFOLK

**ALRESFORD SAND AND BALLAST CO., LTD.**, Alresford Creek, near Colchester, Essex. (Tel.: Wilvenhoe 341/494.) Suffolk area pits at Bures and Stoke-by-Nayland. All grades washed aggregate sand, also hoggins.

**BARDON HILL QUARRIES (ELLIS AND EVERARD), LTD.**, near Leicester. (Tel.: Coalville 1226/7/8; or London: Vigilant 2530.) (For details, see Leics.)

**DICKERSON, M. (CONTRACTORS), LTD.**, Gloucester Street, Cambridge. (Tel.: Cambridge 56973/4.) (See Cambs.)

**HALL AND CO., LTD.**, West End Road, Ipswich. (Tel.: Ipswich 55593/4.) Pits at Kesgrave and Homersfield, near Harleston. Gravel aggregates, concreting, plastering and building sand.

**MACLAREN BROS. (KENNETT), LTD.**, Station Road, Kennett, Cambs. (Kentford 333/4.) (See Cambs.)

**ST. IVES SAND AND GRAVEL CO., LTD.**, 22 The Broadway, St. Ives, Hunts. (Tel.: St. Ives 2441/2/3/4, 401.) Coney Weston 12 and 12A (Tel.: 2523.) Pits at St. Ives, Knettishall, near Thetford, and Gosfield, near Halstead.

**THORPE GRAVEL PITS, LTD.**, Harvey Lane, Norwich. (Tel.: Norwich 33243/4.) (See Norfolk.)

**WEBB, G., CAMBRIDGE, 35 Magrath Ave., Cambridge.** (Tel.: 59966, 53969, 50353 (night).) (See Cambs.)

## SURREY

**COFF, HARRY A., LTD.**, Buckhurst Hill, Chesham, Ascot, Berks. (Tel.: 1026/7.) (See Berkshire.)

**DANGERFIELD, F. J., AND CO., LTD.**, 261A Finchley Road, London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

**EASTWOODS SALES, LTD.**, Eastwood House, City Road, E.C.1. (Tel.: Clerkenwell 2040.) Longside Sand and Ballast Pit, Thorpe, nr. Egham. (Tel.: Egham 3121.) Runfold Sand and Ballast Pit, Runfold, nr. Farnham, Surrey. (Tel.: Runfold 2020.) Producers and distributors of all grades of washed aggregates.

**GILSON, S. C., AND SONS, LTD.**, Holcombe, near Bath. (Tel.: Stratton-on-the-Fosse 243.)

**HALL AND CO., LTD.**, Victoria Wharf, Croydon. (Tel.: Croydon 4444.) Other main depots at Coulsdon, Epsom, Mitcham, Oxted, Purley, Redhill, Tadworth and Woking. Pits at Send and Reigate. Gravel aggregates, concreting, plastering and building sand, Surecrete precision-mixed concrete.

**HARRIS, M. P., AND CO., LTD.**, Kingston Road, Leatherhead, Surrey. (Tel.: 3497.) (See Sussex.)

**IANES AND CO., LTD.**, 2C Buckingham Avenue, Slough, Sand, aggregates, hardcore, ashes, bulldozing & bulk excavation. (Tel.: Slough 20361/2/3.)

**LONDON BALLAST CO., LTD.**, (Tel.: Paddington 5064.) 55A Porchester Terrace North, Paddington, W.2.

**MARCO (AGGREGATES), LTD.**, Pit: Norlands Lane, Thorpe, near Egham. (Tel.: Chertsey 3401.) Producers and distributors of high-grade washed sand, shingle, ballast, etc.

**MARCO (CROYDON), LTD.**, Hampton Road, West Croydon. (Tel.: Thornton Heath 4236/7/8.) All building and road aggregates.

**WELLS, A. L., AND SON, LTD.**, Builders' Merchants, Garlands Road, Leatherhead. (Tel.: 3018/9.) Sand aggregates, hardcore, ashes, cement. Clinker block manufacturers.

**WINTON, WM. R., LTD.**, Send, Woking. (Tel.: Ripley 2454/5.) All grades sand, shingle, ballast, hoggins and ashes. Clinker block manufacturers.

## SUSSEX

**AVANN, F., Cavendish Avenue, Eastbourne.** (Tel.: 4969/70.) Washed and graded ballast, sand, bricks, breeze and concrete blocks, hardcore, clinker, tarmac, etc., supplied.

**GILSON, S. C., AND SONS, LTD.**, Holcombe, near Bath. (Tel.: Stratton-on-the-Fosse 243.)

**HALL AND CO., LTD.**, 16 Chapel Road, Worthing. (Tel.: Worthing 7840.) Other main depots at Bexhill, Bognor, Crowborough, East Grinstead, Eastbourne, Horsham, Hove and Seaford. Pits at Washington, Crumbers, near Eastbourne, Chichester, Rye Harbour, Midhurst, Shoreham and Portslade. Gravel aggregates, concreting, plastering and building sand, Surecrete precision-mixed concrete.

**HARRIS, M. P., AND CO., LTD.**, West Station Goods Yard, Bexhill (Tel.: 61); Cavendish Place, Eastbourne. (Tel.: 3500); Dominion Road, Worthing (Tel.: 8822); Whitbread Lane, Northiam (Tel.: 2211); Station Goods Yard, Haywards Heath (Tel.: 1750); Crawley Road, Mordham (Tel.: 3366); The Horne, Chichester (Tel.: 4181.) All grades aggregates, hardcore, clinker, ashes, etc.

**WRIGHT, C., AND SONS (STON), LTD.**, 19 Bristol Gardens, Brighton, 7. (Tel.: Brighton 63357 and 62406.) All-in ballast, washed and crushed shingle, sand, ashes, hardcore, chalk, bricks, etc.

## WARWICKSHIRE

**BALLIDON QUARRIES, LTD.**, Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. 802 and 1621 and wet-mix; large output reliable deliveries.

**DUSTON STONE QUARRIES, LTD.**, New Duston, Northampton. (Tel.: Brighthelm 278 and 298; Duston 505.) (See Northamptonshire.)

**HALL AND CO., LTD.**, 188 Lichfield Road, Four Oaks, Sutton Coldfield. (Tel.: Four Oaks 356.) Gravel aggregates concreting, plastering, building sand.

**JUDKINS, LTD.**, Granite Quarries, Tuttle Hill, Nuneaton. (Tel.: Nuneaton 3411—10 lines.) All sizes washed granite aggregate, tarred and bituminous macadam. Slab mix a speciality.

**KEY LIME CO., LTD.**, Oakmoor, Staffs. (Tel.: Oakmoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

**SHIRE OAK GRAVELS, LTD.** (See Staffordshire.)

**WELFORD GRAVELS, LTD.**, Head Office: Goldington, Bedford. (Tel.: 4587/8/9.) (See Bedfordshire and Northamptonshire.)

**WARDLOW LIMESTONE, LTD.**, Cauldon Low, N. Staffs. (Tel.: Oakmoor 366.) (For details, see Staffs.)

## WESTMORLAND

**BROOMBYS, LTD.**, Sandside, Milnthorpe, Westmorland. (Tel.: Milnthorpe 3251/2.) All grades washed crushed gravel and limestone, granite chippings, pitching, tarmac, rockery stone, etc.

**ESK MANUFACTURING CO., LTD.**, Carlisle. (Tel.: Carlisle 2-4941.) (For details, see Cumberland.)

## WILTSHIRE

**AMEY'S AGGREGATES, LTD.**, Lower Wootton, Boars Hill, Oxford. (Tel.: Oxford 35421—10 lines.) Pits at Dry Sandford, near Abingdon, Sutton Courtenay, near Abingdon. (Tel.: Sutton Courtenay 275.) Theale, near Reading. (Tel.: Theale 358.) Dorchester, Oxon. (Tel.: Clifton Hampden 236.) Billing, Northampton. (Tel.: Cogenhoe 464.) For washed and graded aggregates to B.S.S.

## WILTSHIRE

**BULL BROS. S. AND L., LTD.**, 126A High Road, Winchester. (Tel.: 2264.) (See Hampshire.)

**COKE, T. F. (CHELTENHAM), LTD.**, 267 Gloucester Road, Cheltenham. (Tel.: 4717/4874.) (See Glos.)

**DANGERFIELD, F. J., AND CO., LTD.**, 261A Finchley Road, London, N.W.3. (Tel.: HAMstead 8044/8.) For all road aggregates, kerbs, setts. (See London.)

**FLOYD AGAR AND CO., LTD.**, Sherston, Malmesbury. Wilts. (Tel.: Sherston 237.) Finest quality Cotswold building stone and walling stone for sale, also hardcore and quarry waste for road making. Delivered or ex quarry at keen prices.

**GILSON, S. C., AND SONS, LTD.**, Holcombe, near Bath. (Tel.: Stratton-on-the-Fosse 243.)

**MOREYS (VERWOOD), LTD.**, Verwood, Wiltshire. Dorset. (Tel.: Verwood 234.) Concrete aggregates, building sand, hoggins, Longmoor, Wiltshire.

**POOLE (LECHLADE), LTD.**, Gravel Pit, Burford Road, Lechlade, Glos. (Tel.: Lechlade 219.)

**TAYMAC, LTD.**, Wootton Bassett. (Tel.: 391—5 lines.) Pits at Lacock (Tel.: 304), Wilts.; Fairford and Poulton, Glos. (Tel.: Fairford 365/6.) Washed and graded aggregates. Washed and screened building sand. Graded clinker made.

## WORCESTERSHIRE

**BALLIDON QUARRIES, LTD.**, Ballidon, near Ashbourne, Derbyshire. (Tel.: Parwich 201 and 202.) Clean and graded dry limestone to B.S.S., all sizes, coated limestone to B.S. 802 and 1621 and wet-mix; large output reliable deliveries.

**BENRGY AND SONS, LTD.**, Kingsland 307/4.) (See details under Herefordshire.)

**CLEE HILL TRANSPORT AND ROLLING CO., LTD.**, Ludlow, Salop. (Cleehillstone 284.) (See Shropshire.)

**DUNNING AND SON, LTD.** (See Shropshire.)

**KEVIN LIME CO., LTD.**, Oakmoor, Staffs. (Tel.: Oakmoor 385/386.) Clean graded dry limestone, all to B.S.S. sizes. Output 1,000 tons per day.

**NASH ROCKS STONE AND LIME CO., LTD.**, Presteigne, Radnor. (Tel.: Presteigne 352.) (See Herefordshire for details.)

**OLD RADNOR TRADING CO., LTD.**, Kingston. (Tel.: 421.) (See Herefordshire.)

## YORKSHIRE

**AIZLEWOOD, DOUGLAS E., Bow Bridge, Rotherham.** (Tel.: Rotherham 2622.) Crushed and graded limestone; all grades of washed gravel and sand.

**DENNIF, ALAN S., LTD.**, Kiveton Park, nr. Sheffield. (Tel.: Kiveton 446/7/8.) Truck-mixed and premixed concrete, washed and crushed gravel, concrete sand, bldg. sand, crushed and graded stone.

**GLEN QUARRIES, LTD.**, Central Chambers, Wellaia Rotherham. (Tel.: Rotherham 5223.) Crushed and graded stone, concreting sand, building and plastering sand and crushed gravel could be collected ex quarry or delivered.

**HOVERINGHAM GRAVEL CO.**, Hoveringham, Nottingham. (Tel.: Loughdam 3171—15 lines.) (For details, see Nottinghamshire.)

**NORTH NOTTS GRAVEL CO., LTD.**, Beilmer, Retford, Notts. (Tel.: Retford 2219—3 lines.) Concrete aggregates and sands, quartzite chippings, building sands. Quarries at Beilmer and Lound, near Retford and Worksop. Truck mixed concrete plants at Retford, Notts, Gwent, Yorks., and Wath-on-Deane, Yorks.

**SALISBURY AND WOOD, LTD.**, Matlock. (Tel.: 272/273.) (For details, see Derbyshire.)

**STANLEY FERRY GRAVEL CO., LTD.**, Norwich Industrial Building, City Square, Leeds, 1. (Tel.: Leeds 26361.) Washed, crushed and natural gravel sand and gravel. Supplies to specification, top daily production. Centre of Yorks. West Riding market. Pit: Wakefield.

**WELBECK SAND AND GRAVEL CO.**, Parfith, Wakefield. (Wakefield 4454.) Washed sand and gravel.

**WEST RIDING GRAVEL CO.**, Norwich Industrial Building, City Square, Leeds, 1. (Tel.: Leeds 23562.) Maximum 1,000-ton daily plant produces washed grit and soft sands. All aggregates to specification. Competitive Yorks. West Riding to Lancs. border. Pit: Wakefield.

**WOMERSLEY GRADED STONE CO., LTD.**, Womersley Quarry, nr. Doncaster. (Tel.: Wetherby 244.) Crushed and graded calcium carbonate limestone aggregates. Triple-sieved, first-class products, high crushing strength, eminently suitable for concreting, tarring and road making. Prices and analysis on application. Quarry: 2 miles from Darrington, A.1.

**X.L. GRANITE (INGLETON), LTD.**, Head Office: Clapham, via Lancaster. (Tel.: Clapham 311/1.) Works Tel.: Ingleton 231. All sizes and grades of Ingleton granite aggregate.

## SUBSCRIPTION ORDER FORM

To THE CONTRACT JOURNAL CO. LTD.,  
32 SOUTHWARK BRIDGE ROAD, LONDON, S.E.1

Please forward "THE CONTRACT JOURNAL" each week for which  
I/we enclose £.....

### SUBSCRIPTIONS

£5 - 4 - 0

per year, post free

£2 12 - 0

half-yearly, post free

Payable In Advance

Name.....

(BLOCK LETTERS)

Full postal address.....

(BLOCK LETTERS)

Occupation/Business.....

(For Readership Classification Purposes Only)

THE INDEX TO DISPLAYED ADVERTISEMENTS WILL BE FOUND ON PAGE 1308

London: Printed and published by the Proprietors, The Contract Journal Company, Ltd., 32 Southwark Bridge Road, S.E.1.  
Thursday, December 8, 1960. Registered at the General Post Office as a newspaper.





# THE SHERMAN TRENCHER OUTPACES THEM ALL!

What a magnificent time-and-money saver! The Sherman Trencher outpaces any other on the market, and yet needs only 14 h.p. for peak efficiency operation. And it can easily be coupled or uncoupled in minutes, freeing your tractor sooner and giving greater interchangeability of units.

**SOLE DISTRIBUTORS FOR THE  
SHERMAN TRENCHER in the following areas:  
LONDON • MIDDLESEX • HERTFORDSHIRE • ESSEX & KENT**

*Call personally or telephone VIKING 3651 for full technical information or better still see the machine in action. We will arrange a demonstration on your own site.*



# GREENHAM EQUIPMENTS LIMITED

CLAYTON ROAD • RUISLIP ROAD • GREENFORD • MIDDLESEX Tel: VIKING 3651

A MEMBER OF THE GREENHAM GROUP



*For safety & economy specify...*

**STANTON**

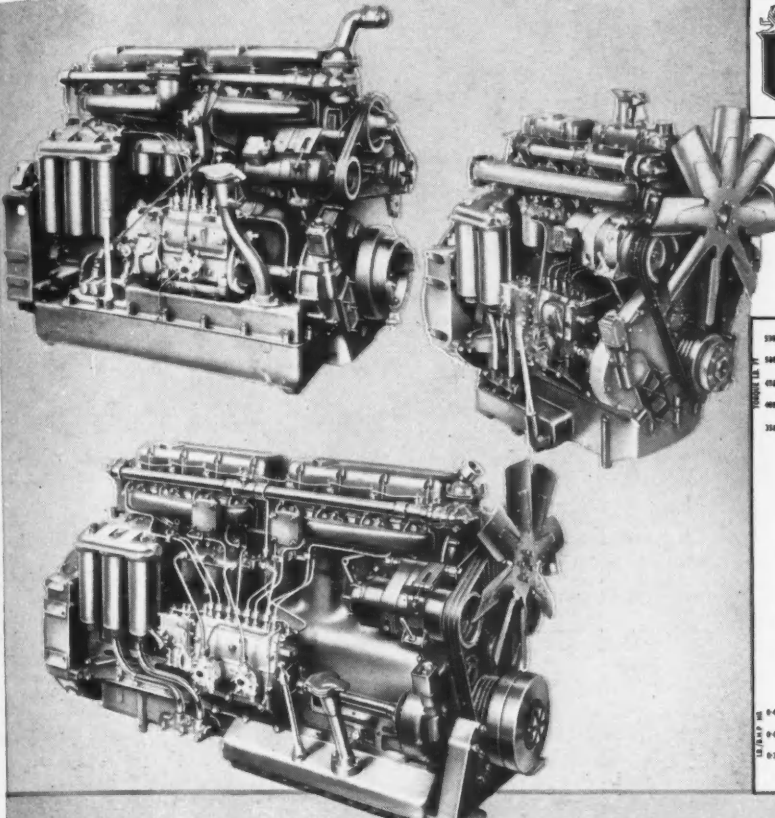
**THICK WALL  
CONCRETE  
PIPES**


Stanton Thick Wall Centrifugally Spun Concrete Pipes, specially designed for economic laying at greater depths without the use of in-situ concrete support, have been used in many schemes during the past ten years.

The photograph is by courtesy of the Birmingham Tame and Rea District Drainage Board and shows 47" diameter Stanton Thick Wall Concrete Pipes being laid at the Minworth New Works.

Engineer to the Board:  
M. R. Vincent Daviss, Esq.,  
B.Sc., M.I.C.E., M.I.Mun.E.

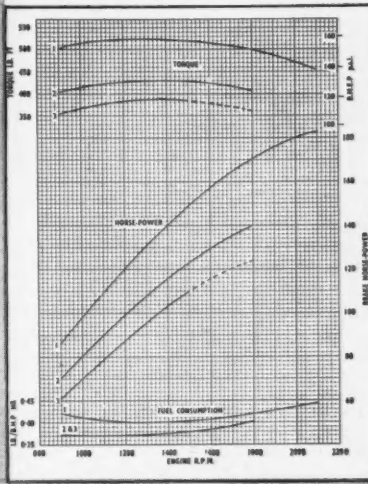
**THE STANTON IRONWORKS COMPANY LIMITED NEAR NOTTINGHAM**





**ROLLS-ROYCE**  
**Diesels**

**4, 6, 8 cylinders**  
**UNSUPERCHARGED**  
**SUPERCHARGED**  
**TURBO-CHARGED**  
**70-700 h.p.**



## Britain's finest contracting equipment —from Jack Olding

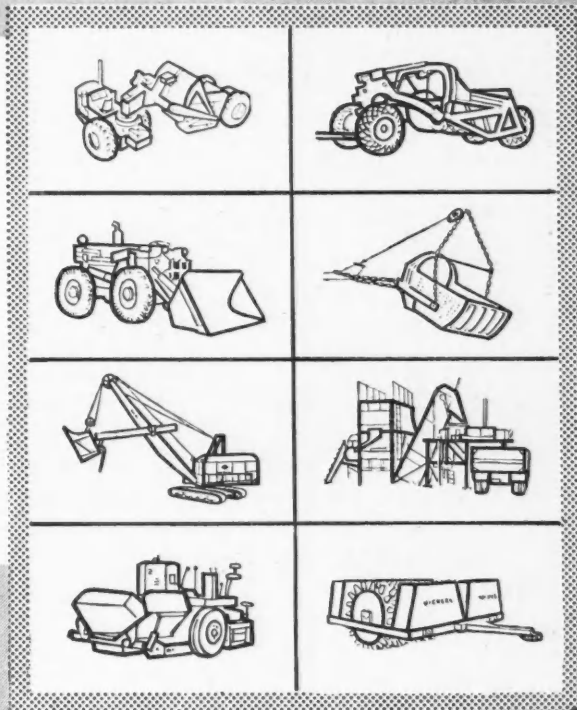
Every item of contracting equipment sold by Jack Olding is a market leader. And each item is backed by day and night service from depots all over the country.

Barber-Greene Asphalt Plants  
 Barber-Greene Road Construction Equipment  
 Hendrix Dragline Buckets  
 LeTourneau-Westinghouse Earthmoving Equipment  
 Lima Excavators and Cranes  
 Rolls-Royce Diesel Engines  
 Vickers Onions Compaction Rollers  
 Vickers Onions Earthmoving Equipment  
 Yale Tractor Shovels

JACK OLDING & CO. LTD., HATFIELD, HERTS.  
 TEL : HATFIELD 2333  
 SCOTLAND: JACK OLDING & CO. (SCOTLAND), LIMITED,  
 COUPAR ANGUS, PERTSHIRE. TEL: COUPAR ANGUS 281



# JACK OLDING

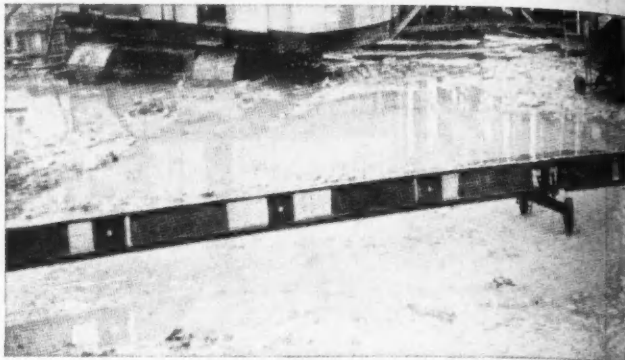




# What are your site conditions?



**LIKE THIS\***



*\*The Mono-Rail established on a site in Germany for transporting concrete over an otherwise impassable sea of mud.*



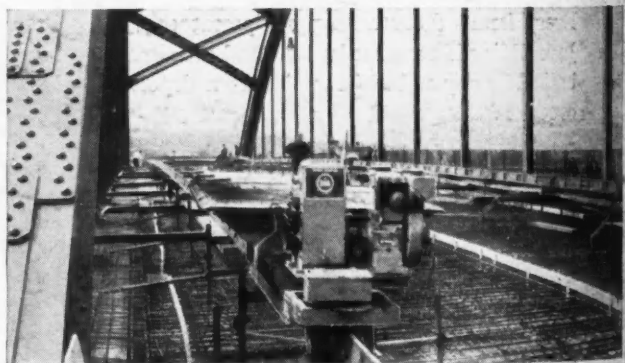
**OR THIS\*\***



*\*\*Concreting house footings and oversites on a site in the United Kingdom.*



**OR, PERHAPS THIS\*\*\***



*\*\*\*Bridge building in Belgium.*

## the **MONO-RAIL TRANSPORTER**

NEEDS NO DRIVER  
IS UNAFFECTED BY GROUND CONDITIONS  
LEAVES GROUND UNDISTURBED  
CLIMBS 1:9 GRADIENTS  
TRAVELS 100 YARDS A MINUTE  
HAS A VERY LOW OPERATING COST  
IS ECONOMIC ON SMALL AND LARGE SITES  
IS SUITABLE FOR ALL TYPES OF CONCRETING  
IS EASILY AND RAPIDLY INSTALLED  
RIDES ABOVE MUD AND WATER



**ROAD MACHINES (DRAYTON) LTD.**

WEST DRAYTON · MIDDLESEX

Telephone: WEST DRAYTON 3721/6

Telegrams: "ROADMACH," WEST DRAYTON

For further details about Mono-Rail Transporters, fill in this coupon and dispatch it to:

**ROAD MACHINES (DRAYTON) LTD., WEST DRAYTON, MIDDLESEX**  
Telephone: WEST DRAYTON 3721/6

Name .....

Appointment .....

Business address .....

C.J.7

:?



a.



7

ON